The Bradshaw Lecture

ON

VESICAL STONE AND PROSTATIC DISORDERS.

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GENTLEMEN,—We are met by reason of the beneficence of the widow of the late Dr. William Woods Bradshaw, a physician who practised first at Andover and subsequently at Reading and who was a Fellow of this College, for the purpose of endeavouring to promote in one direction or another the scientific objects for which this College was originally founded. I shall best mark our respect to the memory of the founder of this lectureship and my appreciation of the honour conferred upon me by at once proceeding to attempt to discharge the duty I have thus undertaken. If, for any purpose, we look at the surgery of to-day as exemplified, for instance, by the work of many of those who either have been or are associated with this college and compare it with what existed at the commencement of this century or even later, it is impossible not to recognise the marvellous progress that has been made all along the line. Though in some directions it may be more apparent or practical than in others, yet it is at once obvious that it is the outcome of the development of principles which are applicable not merely to subdivisions artificially arranged for convenience of study or of practice, but to the whole field over which the science and art of surgery may be said to range. It will be my endeavour in noticing certain advances that have taken place in work which circumstances have brought more immediately under my notice to give prominence to some aspects of a large and an important subject which appear to deserve further consideration and expansion. In this way I venture to hope I shall best fulfil the objects entertained by the beneficent founder of this lectureship.

In bringing under your attention some points connected with the surgery of the urinary organs it is impossible to refrain from noticing the important changes that have taken place in the operative treatment of the affections of these parts within the recollection of most of us present on this occasion. Lateral lithotomy has practically disappeared from the scene, suprapubic and perineal cystotomy, more especially in their application to calculus, have undergone important modifications and have been revived, the older methods of removing stone from the bladder by crushing have been supplanted by Bigelow's process of litholapaxy, and the surgery of the kidney with the various methods this includes, now occupies a permanent and prominent position in our text-books. Nor is it improbable that the range of renal surgery may not be still further extended with advantage. The outcome of these changes in, and additions to, our methods of dealing with urine stones alone represents a saving of life and suffering which would be difficult, if not impossible, to estimate by figures. The almost entire disappearance of lateral cystotomy, using this term in its more extended application to various affections and injuries of the urinary apparatus, is a turn of affairs which I venture to think cannot be viewed entirely with satisfaction. Some of us may remember how marvellously this operation was utilised by the late Sir William Fergusson for the rapid and successful removal of certain forms of stones from the bladder. It was in this theatre and before a distinguished audience of the kind gathered here to-day that he referred to this process in terms of eulogy as "the master handiwork of surgery." In thus dissenting from the tendency existing at the present day to relegate lateral cystotomy to the surgical shelf, the suggestion comes to me in a measure from reading some remarks in a review relative to certain observations of which I happened to be the author, where I was rather severely taken to task for being so old-fashioned or so eccentric as to reproduce for the use of my readers, at the close of the nineteenth century, a somewhat carefully prepared description of this operation. It seemed to me that such a criticism was a little premature, for though the use of this operation in stone cases was daily becoming more restricted by reason of the substitution of other methods, the fact that lateral cystotomy possessed essentials in treatment peculiar to itself must for ever command for it a place in the records of operative surgery. By what other means that have yet been devised, may I ask, can a surgeon by an opening from the perineum in the male secure the removal of a stone and the dependent drainage of a diseased and incontinent bladder without the use of apparatus, together with the necessary infliction of a wound on the prostate which there are reasons for thinking has not unfrequently been the means of arresting its growth, if not of inducing its atrophy when enlarged? Nor can it be doubted for the reasons just assigned that in certain forms of injury involving the neck of the bladder, complicated as this sometimes is with fracture of the bones constituting the pelvic arch, as in instances of extra-peritoneal rupture of the bladder, an incision as for lateral cystotomy has frequently been the means, by at once establishing free and untrammelled drainage for the urine, of alone bringing about a successful termination to the case. For reasons such as these I should be sorry to think that the mode of performing lateral lithotomy has either ceased to be taught in our schools or to be tested by our examiners. Lateral cystotomy has to a large extent been displaced by the revival of the suprapubic or high operation on somewhat altered lines, and with this substitution I am not disposed to find fault. By this method an easy access to the bladder for the purposes of exploration and drainage not requiring a dependent opening, for the removal of growths from the interior of this viscus as well as pendulous excrescences from the prostate, is provided. In the case of small stones, both in the adult and the child, its substitution for crushing in uncomplicated cases is often unnecessary, whilst in the instance of very large calculi, though no other course may be open to the surgeon, the risk to life, it must be remembered, is considerable. Time, however, will not permit me to traverse opinions and practices relative to an operation which has undoubtedly justified its revival and has proved of much service in connexion with the general surgery of the bladder. Its selection relative to the treatment of stone will be found mainly to turn on individual experience rather than upon those hard-and-fast lines which lecturers are sometimes disposed to lay down.

Turning to the crushing operation for stone as now generally practised on the lines laid down by Bigelow in 1878, we shall find much connected with it of interest to discuss without encroaching upon historical and personal controversy. There can be no doubt whatever that the anticipation expressed by the author of the term "litholapaxy" as to the crushing and evacuation of stone from the bladder by an uninterrupted and completed process with hardly any reference to its size or constitution, being followed by a largely diminished mortality, has been more than realised. In connexion with Bigelow's method of operating I may perhaps be excused in saying what pleasure it afforded me in being present at the Massachusetts General Hospital, and witnessing some of the cases which formed the earliest portion of the important series that Bigelow subsequently published[1] in illustration of his work. The instrument I am showing you is one of his original evacuators with the catheters which I brought over with me from Boston in 1878, and subsequently used. I do not, however, think it would be right in thus alluding to the greatly diminished mortality that has followed successive improvements in the crushing operation for stone, or by whatever other name we may call this proceeding, were I to omit to refer to the impetus given to this direction of work by Civiale and Guyon in France and by Sir Henry Thompson in this country. By the latter the Museum of this College has been greatly enriched by his gift of a collection of calculi which is unique in its extent and clinical history, whilst our library and our literature have largely profited by his pen. I must, however, turn, as I have already indicated, to another aspect of my subject. In his Hunterian lectures, delivered before this College in 1886, Mr. Cadge observed that "although the immediate and direct mortality of lithotrity is small the recurrence of stone is lamentably frequent." In illustration of

[1] Litholapaxy. W. Wood and Co. New York, 1878.

this statement he referred to figures which indicated this as then amounting to about one in seven. It must, however, be remembered that this calculation was based to a considerable extent upon cases operated upon by the processes of crushing with very imperfect means of artificially evacuating the fragments from the bladder which preceded Bigelow's time. A decade has now elapsed since this criticism was offered, and without troubling you with figures which might be open to objection for this purpose if not drawn from sources in actual parallelism with those which formed the basis for the conclusion Mr. Cadge arrived at, there can be no doubt that within this period and directly arising out of the further development and more general adoption of Bigelow's work the liability to recurrence after these operations has greatly diminished. Improvements in the construction of lithotrites or breaking machines so far as relate both to trituration and speed, the more general substitution of fenestrated for smooth-bladed instruments, the use of the evacuating cannula permitting of the more ready withdrawal and escape of the broken-up fragments from the bladder, and the employment of aspirators or wash bottles more capable of sluicing the bladder and any irregular pouches it might possess, are the means which have chiefly contributed towards this end. It would be an interesting study, and not without some prospect of promoting further developments in this direction—to trace, if occasion permitted, the various advances that have been made from time to time in the construction of the mechanical appliances used in crushing and evacuating stone in the bladder. I am disposed to think, however, that in the further application of chemistry and physics in this direction—I refer more particularly to the extension of such investigations as Rainey's on Molecular Coalescence relative to the Formation of Calculi—to all forms and positions of urine stones that further improvements in practice will eventually come. My reasons for thus venturing an opinion on this point are mainly based on the assumption that such investigations as I have just referred to describe the mode in which calculi are built up in the human species by an exact and unvarying process which is capable of being imitated in the laboratory. Or, as Rainey observes, "there seems to be no reason why this explanation of the formation of these urinary calculi by molecular coalescence should not be regarded as the correct one." Thus may we hope eventually to learn to interpose conditions artificially, which, being at variance in some degree with a formative act, necessarily render the completion of a stone-producing process abortive. In the more methodical study in relation to their control, of the forces which make cohesion of certain natural products of the body possible or impossible, further advances may be hoped for in these directions.

Reverting to stone recurrences it must still be recognised that even with the best appliances and skill they not unfrequently occur, and it is to such instances in relation more particularly to some recent investigations in collateral directions I would desire now to direct your attention for a few moments. If we analyse the causes of stone relapses after crushing operations there can be no doubt that a failure to remove all the fragments from the bladder in the first instance is by far the most frequent one. It is in reference to this very important matter that lithotomy, however performed, irrespective of the question of mortality, shows to an advantage and at the same time suggests an explanation why this distinction should exist. This is a point which I think requires further analysis and consideration. The general experience of crushing operations as now and for some years past almost universally practised under the name of "litholapaxy," in this country at all events, seems to indicate sufficiently clearly that the liability to recurrence after this operation increases considerably as age advances. Recurrences before sixty years of age are rare, and are usually traceable to some exceptional circumstance, such as urethral stricture or obstruction attended with pouching or trabeculation of the bladder; hence we may conclude that hypertrophy of the prostate and the structural complication arising out of this in conjunction with atony or imperfect powers of urine expulsion are frequent concomitants in by far the larger proportion of stone relapses after lithotrity. This is the view which I believe now finds general acceptance. This explanation, of course, applies only to those instances of recurrence where the calculus is mainly phosphatic and of vesical origin, in contradistinction to those where a fresh descent from the kidney takes place, and accidental arrest and growth in the bladder secondarily ensues. Instances are occasionally met with where the operation of crushing has been followed within a few days by an attack of renal colic. Here a diathetic stone is either spontaneously expelled in the course of normal micturition or, being too large to get over the bar caused by an enlarged prostate, requires pulverising with the lithotrite before its evacuation can be effected. In cases where persons have been in the habit of passing renal calculi for years it is frequently found when the prostatic age is reached that the ureters, no doubt much dilated by previous attacks, allow stones of considerable size to descend into the bladder comparatively painlessly, which are subsequently trapped by the enlarged prostate. Otherwise they might, as previously, have been spontaneously voided. Recalling, however, the ordinary circumstances under which stone recurrences after lithotrity most frequently occur I am brought to consider, not the necessity for imposing other restrictions upon the employment of an operation by means of which so much has been achieved at so small a risk to life, but how far progressive surgery permits us to remove or mitigate complications in structural defects which tend to provide mechanical difficulties, sometimes insuperable, in the way of complete evacuation of the fragments and subsequently furnish favourable conditions for repeating the process of stone-making when once the nucleus is there. We may therefore proceed to inquire—(1) what means have we, if any, of diminishing the enlarged prostate; (2) to what extent are they applicable to cases complicated with recurring vesical stone; and (3) what alternative measures have we for litholapaxy under exceptional circumstances of this nature. If the question were put to a student under examination, What surgical measures have been followed by atrophy or shrinkage of the hypertrophied prostate? I think he would be justified in replying somewhat in this way—It has followed cases of simple incision into the prostatic ring as in the second stage of lateral lithotomy. It has supervened upon puncture of the bladder through the enlarged prostate with retention of the cannula for some weeks.[2] Shrinkage of the enlarged prostate has followed upon double and single castration and upon double and single vasectomy or division of the vas deferens. This answer would of course not be regarded as including cases of partial or complete removal of the prostate gland now known under the name of prostatectomies. The second question which necessarily arises out of the preceding statement—namely, how far these several methods of inducing shrinkage or inactivity are applicable to cases of hypertrophied prostate complicated with recurring vesical stone, is not so easily or so briefly answered and will, for the latter purpose, require some expansion. Prostatic incision, or puncture as first referred to, apart from the limited nature of the observations where atrophy seems to have followed them, would hardly be applicable in cases otherwise suited for lithotrity. I will, therefore, without further comment, pass on to notice the adoption of castration and vasectomy in respect to the object now under review.

Reference to these proceedings opens up a subject which so far as it relates to the practice of surgery is new, though from an anatomical and physiological aspect it has previously received some attention which must not be entirely overlooked. John Hunter[3] appears to have experimented on animals in reference to this point, and more recently Griffiths[4] has added importantly to these researches. Decimus Hodgson[5] of Glasgow wrote in 1856 "in persons who have been castrated the prostate dwindles down almost to a rudimentary condition." The inference, however, that what is true relative to the normal state of these parts also applies in varying degrees to the hypertrophied prostate does not appear to have been utilised systematically for practical purposes until Dr. William White of Philadelphia drew attention to it in 1893.[6] Since this paper appeared the operation of castration and other proceedings arising out of the same train of thought relative to the enlarged prostate have been somewhat extensively employed, and to some of the results obtained and the considerations suggested I purpose now referring. From the records of this operation, now amounting

[2] Surgical Disorders of the Urinary Organs, by Reginald Harrison fourth edition, p. 276.

[3] Works edited by Palmer.

[4] Journal of Anatomy and Physiology, vols. xxiii. and xxiv.

[5] On the Prostate Gland. Glasgow, 1856.

[6] Transactions of the American Surgical Association, 1893 and 1896.

to several hundred cases, which from time to time have been drawn up by various surgeons I do not think there can be any doubt in arriving at the conclusion that in a certain proportion of cases castration has undoubtedly been proved to have been speedily followed by sbrinkage of the large prostate and abatement of the symptoms attending this condition. Taking one of the most recent communications on the subject of which Dr. Cabot[7] of Boston is the author and which includes about 100 well authenticated cases in illustration, on reading it I was struck not so much with the somewhat high death-rate, but with the uncertainty as to the kind of result, physical as well as mental, the surgeon is likely to expect. Will the patient recover completely or imperfectly when the risk of the operation is passed, whatever this may be, are questions which naturally arise and are apparently at the present stage not very easy to answer. In the expression of opinion by Dr. Cabot that castration seems especially efficacious in cases of large tense prostates when the obstruction is due to the pressure of the lateral lobes upon the urethra and is of but little use in myomatous and fibrous glands, he is warranted, I consider, by the records to which I have referred.

I have hitherto been addressing myself more particularly to the application of castration to prostatic hypertrophy generally. Scattered, however, through the cases which have been recorded are some few where it has been utilised for recurrence of stone after crushing operations with advantage, where this complication was prominent. I cannot quote a case of my own in illustration, as I have not had occasion to resort to it under these circumstances, but I am acquainted with one where it well served this purpose. It was that of a male seventy years of age who had stone recurrence after lithotrity on three occasions at intervals of a year or so. On the fourth time of relapse the urine and bladder were in so foul a state from cystitis and great enlargement of the prostate that a suprapubic cystotomy was performed by means of which a phosphatic stone was again removed and the bladder was drained for some time. The patient, however, was intolerant of all the methods that were tried with the object of keeping the wound open by various drainage appliances, and eventually it closed before the latter process was completed. This was followed by a speedy return of all the symptoms of cystitis and the commencing formation of more phosphates. To meet this condition the bladder was again cleared by means of the lithotrite and the aspirator and double castration was performed. The relief was now complete, and is, I believe, permanent, as the patient has been free of his stone and his symptoms for nearly two years and has no need either of his catheter or his irrigator. It is under circumstances such as these that castration may occasionally find a place in the treatment of recurring stone complicated with enlargement of the prostate. In selecting it, however, apart from other considerations, the surgeon must be reasonably clear in his opinion that the case is not one either of encysted or pouched stone; otherwise, as castration affords no opportunity of making either a digital or ocular examination of the interior of the bladder, a suprapubic prostatectomy would, in the face of these presumed complications, be preferable.

After reading Dr. White's first paper, to which I have already referred, I took an early opportunity of raising the question as to whether somewhat similar results so far as the enlarged prostate was concerned could not be induced by dividing either one or both of the excretory ducts of the testicle. I based my suggestion partly on a case[8] where I had casually, though at the urgent desire of a patient, divided the vasa some years previously (under somewhat exceptional circumstances which I narrated) with good results continuing over a considerable period of time. Further, I drew attention, in connexion with the subject of injuries to the vas deferens, to certain cases recorded by Hilton and Birkett[9] where atrophy of the corresponding testis was proved to have followed the accidental division of this tube either by section or laceration. My contention was that if division of a vas brought about atrophy of the corresponding testis it was logical to conclude that the remote effect on the prostate would be the same as if the testis had been actually removed. That is to say, the division of one vas should be followed by unilateral atrophy, first of the testis and afterwards of half of the prostate. Whereas if both vasa were divided both testes and the whole of the prostate should subsequently undergo sbrinkage. I think I may claim that this has now been demonstrated to be the case. It must, however, be stated that one of the objections I have put forward against castration, as matters at present stand, applies with equal force to vasectomy. I refer to the uncertainty that exists as to what kind of results will be obtained. In the course of a discussion that recently took place[10] in reference to the treatment of prostatic hypertrophy by these means I took the opportunity of saying that from some experience of my own the results of vasectomy depended very much on attention to certain details connected with the operation which I ventured to enumerate, and which I will briefly repeat. In the first place I do not think it is well to operate on both vasa at the same time, as any risk connected with the proceeding is increased and mental effects of a serious nature may follow such as have been observed after castration. I have not met with an instance where any ill effects resulted when a sufficient interval was allowed to elapse between the two operations. I think the interval should be not less than a month. I have seen instances where the relief following the division of one tube was so sufficient as to render division of the opposite one unnecessary. In some of my cases I found that after one vas had been divided the prostatic symptoms subsided at once, and then after an interval of three weeks or so began to re-appear coincidently with some hypertrophy of the testicle of the opposite side where the tube had not yet been divided. The second operation was then proceeded with and it was in the group of cases where this incident was observed that I obtained the most satisfactory results. It must, however, be remembered, as I have endeavoured to put it, that in bringing about prostatic atrophy or inactivity by section of the ducts it is through the medium of a double process, or, rather, by the induction of an atrophy by an atrophy. Hence the effects of vasectomy upon the prostate are longer delayed and more gradual than when the testes are primarily removed. In some of my cases of double vasectomy it was observed, though in all instances the effects were properly explained to the patients beforehand, that the division of these ducts was not immediately followed by cessation of sexual desires, and months sometimes elapsed before these sensations finally ceased and atrophy of the testes was marked. I am not aware, however, of an instance where these effects, though delayed, were not finally attained. Though vasectomy must be regarded as a slower process than castration relative to prostatic changes, in this I believe lies its comparative safety and advantage. In the next place, a portion of the vas must be resected and not merely ligatured. Pavone,[11] who has recently reported twenty-eight cases out of thirty-four where the patients were either cured or improved after vasectomy, advises that in addition to excision the ends of the canal should be twisted so as to ensure complete closure. The possibility of the restoration of the occluded vas when a ligature only has been used had been illustrated by Dr. Bransford Lewis.[12] Here on the return of prostatic symptoms it was found that the continuity of the duct had been re-established after the ligature had come away. The simplest way of performing the operation seems to consist in exposing the vas by a short linear incision over it and protruding it between the finger and thumb. An aneurysm needle is then slipped under the isolated duct by means of which a loop about an inch in length is withdrawn. The latter is then included in a silk ligature when the free portion is removed by scissors. The small wound usually heals quickly. Apart, however, from some failures arising from want of attention in operating to details such as these there appear to be other reasons requiring consideration and which apply with equal force both to castration and vasectomy. I have already stated that where the prostate has passed into a fibrotic condition or where the obstructing third lobe represents in structure a fibrous tumour the prospects following either operations on the sexual apparatus are unpromising. Here McGill's operation is usually indicated. There are, however, other conditions of the prostate which must be taken into our reckoning. I am inclined to believe that if the consideration and discussion of these two operations relative to prostatic hypertrophy did no more than lead us to reconsider many points connected with the pathology of this part much will have

[7] American Surgical Association, May, 1893.
[8] Brit. Med. Jour., Sept. 23rd, 1893.
[9] Holmes's System of Surgery, first edition, vol. ii., p. 739.

[10] Brit. Med. Jour., Oct. 10th, 1896.
[11] Il Policlinico, No. 15, 1896.
[12] Journal of Cutaneous and Genito-Urinary Diseases. New York, 1896.

been accomplished. I have long thought that slowly progressive carcinoma of the prostate, resembling in some features the more ordinary forms of hypertrophy, is far more common than is generally believed to be the case. My attention was first called to this matter in 1886, when I recorded a case [13] which I will briefly refer to. It was that of a man aged fifty-nine years who as a private patient I had the opportunity of watching for two years up to the time of his death. In the first instance he suffered from some irritability of the bladder, which he could not completely empty. He was losing flesh, becoming pale, and though the mental faculties remained vigorous to the last he constantly complained of pain in the loins, nates, and thighs. In the course of a few weeks he became entirely dependent upon the catheter. His prostate as felt from the rectum was hard, nodular, and almost insensitive to the touch, though it was not much enlarged nor were any neighbouring glands found to be involved. As his general health slowly declined minute petechial spots appeared on various parts of his body and his feebleness gradually increased. Occasionally he passed a small quantity of blood with his urine. He appeared to die from exhaustion, the result of prolonged blood vitiation. After death his prostate was examined by Mr. F. Paul, who reported it to be an unmistakable example of carcinoma. There was no evidence to show that this was other than the primary disease. I remember Mr. Paul remarking to me at the time that the precise nature of the disease would probably have been undiscovered had it not been carefully looked for, as there was, apparently to the naked eye, but little to distinguish the specimen from ordinary hypertrophy. I have since met with many instances of this kind in practice and have been able occasionally to confirm the diagnosis by pathological examination. Clinically this group of slowly progressive carcinomata may be distinguished by the following indications. In the first place they are generally met with in persons who are rather under what I would speak of as the prostatic age—that is to say, they chiefly occur in males of fifty-five or thereabouts. When felt from the rectum the gland is found unusually hard, bossy, and rather insensitive to the touch. They seldom bleed much or ulcerate unless damaged by a catheter or sound. Though the use of the former is generally required more or less constantly before the case terminates there is seldom either sudden or complete retention, or even distension of the bladder. Reflected pain in various parts such as the thighs, nates, and rectum is often complained of, in addition to much painful irritability of the bladder. Death is usually caused by blood vitiation and exhaustion, with well-marked signs of what we used to speak of as a cachexia. I have referred to fibrous and carcinomatous prostates for the purpose of remarking that for such growths as these neither castration nor vasectomy is at all likely to be of any avail. Together they represent a by no means uncommon condition of this part, and their treatment must be conducted on the principles which are applicable generally to growths involving the interior and neck of the bladder. In going over the recorded cases of castration and vasectomy it is not difficult, in reading between the lines, to see that amongst them are included instances of the two conditions to which I have just referred and where experience shows that no good was likely to accrue from what was done. These we must endeavour to exclude and then I think we shall find that division of the vasa deferentia will be found an efficient and fairly reliable means for relieving advanced forms of prostatic hypertrophy without incurring the additional risks, not to mention other drawbacks, which naturally attend such an operation as castration. I must not here forget to mention that I have in three instances employed division of the vasa in recurring stone with cystitis due to much enlargement of the prostate with great and I believe permanent advantage. Apart from the non-recurrence of the stone, after fair intervals of trial a general improvement in the function of micturition has been maintained, and this is in correspondence with what other surgeons have illustrated in the records to which I have referred. It will, of course, be understood that the operative expedients I have drawn attention to as worthy of consideration are only applicable to grave varieties of prostatic disease, whether complicating vesical stone or not. When we recognise how considerable a proportion of well-matured brains carry on long and useful lives with advantage to those belonging to them as well as to the community at large, and who are more or less dependent upon the aid a catheter affords, it is unnecessary to say that such measures as those I have been discussing can only apply in any degree to the exceptions and not to the rules. The latter are already, I believe, adequately provided for, whilst in the interests of the former all proved methods, either of cure or relief, must receive, as they always have done, our careful and unbiased consideration.

I will now pass on to offer some remarks in reference to perineal lithotrity. Amongst the variations that stone cases present a small proportion will be met with where, by reason of the condition of the bladder and the urinary apparatus generally, the ordinary operation of crushing is not applicable. In these cases not only must the stone be removed, but provision made for the drainage of the bladder, and for the latter purpose lithotrity in no way adequately provides. Where the stone is large—and I am speaking now of calculi between two and three ounces in weight—and the prostate and bladder more or less involved in suppuration and chronic inflammation various substitute proceedings are adopted which have to be considered. Suprapubic cystotomy under these circumstances is attended with a high rate of mortality. Guyon and others have estimated it in males of advanced age, who are generally the subjects of these complications, at somewhere about 50 per cent., and my own impression is that this is about the case. Such a mortality as this takes us back to some of the worst days of lithotomy and contrasts unfavourably with other forms of suprapubic cystotomy, as, for instance, when applied to younger persons, and even with suprapubic prostatectomies which Mr. Mayo Robson [14] has shown to be a much less risky proceeding. It is now some years ago since I had this point under careful consideration in connexion with one or two cases of septicæmia after lithotrity arising under the conditions I have just referred to. On reviewing the various operations employed for removing stone from the bladder other than by crushing alone it appeared that there was much in Dolbeau's [15] method of perineal lithotrity to recommend it. The objections against it chiefly centred in the employment of forcible dilatation of the prostatic urethra and the neck of the bladder, and in the instruments used in crushing and evacuating the stone fragments. Further, no provision appears to have been made by Dolbeau for draining the bladder systematically after the stone had thus been withdrawn. These objections, however, seemed to be capable of removal and I proceeded to practise this operation from time to time, as suitable cases presented, in the following manner. In the first place an ordinary *boutonnière*, or median perineal cystotomy, is practised on a grooved staff sufficient to admit the introduction of the finger into the bladder as for digital exploration. This represents all the dilatation of the prostate or neck of the bladder that is attempted. The next step is to withdraw the index finger and substitute a pair of crushing forceps specially made for this purpose, though in other respects resembling an ordinary pair of lithotomy forceps, either straight or curved. These have been constructed for me by Messrs. Krohne and Sesemann. They are made in different sizes, the most powerful having a screw at the handle by which the full crushing power is brought into play. In circumference the combined blades correspond in size with an average index finger, and contain, well within cover, a strong cutting rib running down the centre of each, by which the fragmentation of the stone or stones is chiefly accomplished. By means of these forceps the stone is sufficiently reduced in size as to be either easily withdrawn in fragments from the bladder by these instruments or to be sluiced out with a cannula and an ordinary wash-bottle as used for litholapaxy. Straight cannula such as these will be found the most convenient for this purpose. After the stone has been withdrawn and the bladder and prostate carefully examined either with the sound or the finger the drainage-tube is introduced and retained for as long as necessary in accordance with the nature of the case. Here is (showing a specimen of a stone) the hardest kind of urate, the fragments weighing over three ounces, which was broken up and withdrawn in this way in something like five minutes, a process which would have occupied an hour or more had it been expedient to substitute lithotrity. I also removed with my finger quite easily a grape-like third

[13] Op. cit., p. 509.

[14] Brit. Med. Jour., April 28th, 1894.
[15] De la Lithotritie Perineale. Paris, 1872.

lobe which was in my way. The patient made a rapid and complete recovery. From this it may be judged what these forceps are capable of effecting and what may be withdrawn through a wound although only sufficient in extent to admit the introduction of an index finger. I have in one or two instances tried a short lithotrite, such as Surgeon-Major Keith has described, passed into the bladder through the perineal wound, instead of by crushing forceps, but find the latter more effective and convenient for use in this position. I have selected this method in fifteen instances out of considerably over 300 cases of lithotrity, and have so far had no deaths or recurrences of stone following it. The chief points in its favour are these: (1) It enables the operator to crush and evacuate large stones in a short space of time; (2) it is attended with a very small risk to life as compared with other operations, such as lateral or suprapubic lithotomy, and is well adapted to old and feeble subjects when for any reason crushing is inadmissible; (3) it permits the operator to wash out the bladder and any pouches connected with it more effectually than by the urethra, as the route is shorter and the evacuating catheters employed of much larger calibre; (4) the surgeon can usually ascertain, either by exploration with the finger or by the introduction of forceps into the bladder, that the viscus is cleared of all débris; (5) it enables the surgeon to deal with certain forms of prostatic outgrowth and obstruction complicated with atony of the bladder in such a way as to secure not only the removal of the stone, but the restoration of the function of micturition; and (6) by the subsequent introduction and temporary retention of a soft rubber drainage-tube states of cystitis due to the retention of urine in pouches and depressions in the bladder wall are either entirely cured or are permanently improved. To lock up unhealthy ammoniacal urine in a bladder that cannot properly empty itself after a lithotrity is to court the formation or recurrence of a phosphatic stone. Hence it is well suited to some cases of recurrent calculus. I have never known the wound to remain unhealed except in those instances where, for some reason or other, it has been desired to construct a low-level urethra. It is well adapted for some cases of stone in the bladder complicated with stricture in the deep urethra, as it enables the surgeon to deal with both at the same time.

In a recent paper by Mr. Herbert Milton of Cairo [16] I see that the operation of perineal lithotrity figures prominently and successfully amongst the 200 cases of stone he records. He has employed it much on the same lines as I have described in twenty-one instances with one death. Though speaking of Bigelow's operation as the more brilliant of the two he evidently has reason to regard perineal lithotrity as now revived as the more generally useful. A specimen made by Messrs. Down Brothers of the breaking forceps Mr. Milton employs is submitted for your inspection. Taking Mr. Milton's twenty-one cases and fifteen of my own we have a total of thirty-six with one death, which, considering the size of many of the stones and the complications that were present, gives, I think, a very satisfactory result and one that will compare favourably with other operations, either crushing or cutting, used in the treatment of stone. I have a growing impression that in countries where by reason of the great age that is often attained by persons suffering from stone in the bladder, and where the opportunities for practising litholapaxy are not very frequent, perineal lithotrity will be more generally utilised.

Before leaving subjects connected with the treatment of vesical stone by crushing I would briefly allude to a change in practice for the better which is a direct outcome of the excellent work in the application of this operation to male children. I refer more particularly to the successful employment of litholapaxy in this direction by our distinguished Fellow, Brigade-Surgeon-Lieutenant-Colonel Keegan—work which has been importantly supplemented by my colleague, Dr. Freyer.[17]

Sudden retention of urine in young males is most frequently caused, as we are all aware, by the impaction of a small stone in the urethra. Such an incident, apart from the extreme urgency of the symptoms thus produced, has not unfrequently led to ulceration of the urethra and serious, if not fatal, extravasation of urine into the neighbouring tissues. In fact, it may be stated, with hardly an exception, that it is under these circumstances alone such a calamity is met with in these young subjects. In earlier days, when the catheter detected that a stone was thus impacted, the practice universally was either to cut down and remove the calculus from the position it occupied in the urethra, or if possible to push it back into the bladder, and then to extract it by some form of lithotomy or cutting operation. Though either proceeding was usually successful it entailed an operation which necessarily required a period of convalescence to follow. Amongst some of my earliest lithotomies in male children were cases occurring under these circumstances. In illustration of the importance of this change in practice I may be permitted to mention, very briefly, the particulars of a recent case. It was that of a boy aged four years whom I saw with urgent retention of urine due to the lodgement of a stone in the urethra just behind the scrotum. I pushed the stone back into the bladder and the retention was at once relieved. On the following morning I had the child placed under an anæsthetic and crushed the stone. As I found at the moment I had not an evacuating catheter sufficiently small as to enter the bladder without more force than is desirable I contented myself in more completely pulverising the calculus with the lithotrite than I should otherwise have thought necessary to do. The débris was discharged in the natural course of micturition and the patient was practically well without any delay, as the urine was never even tinged with blood. Sir William Roberts was kind enough to examine the fragments of the calculus and reported that it consisted of uric acid with a coating of oxalates and weighed a little over five grains. A short time ago the patient would undoubtedly have been submitted to a more serious operation. I may incidentally mention that I reported [18] a very similar case where I practised lithotrity in a male child aged eleven years in 1881, and I have since from time to time successfully adopted this proceeding. I believe this was one of the first recorded examples in so young a subject, a circumstance I had forgotten until recently reminded of it by my friend Brigade-Surgeon-Lieutenant-Colonel Keegan. Some small lithotrites were then made for me by Messrs. Weiss, of which this is a specimen. I have not met with an instance of recurrence of stone after litholapaxy in children.

In bringing my observations to a conclusion I shall ask your indulgence for a few moments whilst I engage in some speculations in contra-distinction to the subject matter I have hitherto ventured to bring under your notice, in the belief that it has been sufficiently demonstrated as to warrant me in doing so. I refer to the application of the Roentgen or x rays to this branch of surgery. I feel that I am justified in doing so, partly for the reason that if these anticipations eventually fail to be realised they may still possibly serve to indicate in what directions assistance from collateral science is required and may be expected, and partly because Sir Joseph Lister (the distinguished President of the British Association) in his recent address in Liverpool emphasised the belief that in the near future surgery had much to gain by this method of investigation. As to the truth of the latter statement there can be no doubt. To what extent this means may be utilised in matters which have occupied a considerable portion of this lecture has yet to be demonstrated. In its application to the diagnosis of calculus situated within any portion of the male or female urinary apparatus from the kidney downwards I am not aware that it has been sufficiently successful in indicating either the form or position of the stone. From some experiments made chiefly outside the human body—I refer to such as those of M. d'Arsonval in Paris and Mr. Henry Morris [19] and others—it is quite possible by the shadows thus cast to distinguish various kinds of calculi. At present I do not think more than this can be said or has been sufficiently demonstrated. Though I have had several patients skiagraphed I have not yet succeeded in obtaining results which were of help in making a diagnosis independently of such means as we are in the habit of using. In thus referring to this method of investigation it is with the hope that in its further development and application it will, amongst other aids, enable us to dispense with the use of the sound as a means of diagnosing stone in the bladder. I cannot recall an instance in the child, woman, or young adult extending up to what I would call middle age who was ever seriously damaged by the judicious use of this instrument, but in males of a more advanced age, where the prostate was large and access to the interior of the bladder,

[16] THE LANCET, April 18th and May 2nd, 1896.

[17] See Dr. Freyer's paper, published in this issue of THE LANCET, p. 1672.—ED. L.

[18] Op. cit.

[19] THE LANCET, Nov. 14th, 1896.

by means of a rigid instrument, by no means easy, we have seen, both where a stone had been discovered as well as where one had not, serious and even fatal consequences ensue. A cystitis, for instance, has thus been aroused with considerable general disturbance which has sometimes taken a long time to overcome, not to say anything of being the means of postponing a necessary operation indefinitely by reason of the acute septic conditions under which it would otherwise have been undertaken. Nor is this all. How few surgeons, in whatever degree they may be engaged in work of this kind, can feel that the skilful employment of the steel sound is an absolute guarantee against the possibility of a stone escaping their vigilance. When we look at the shape the diseased bladder and prostate often assume it is astonishing to me that this somewhat primitive mode of examination so rarely fails us; but it is in just this particular class of cases that we rely upon it most and where our disappointment is the keenest if it falls short of our expectation, whatever the explanation may be. Under these circumstances I have for some time past been in the habit of including under one process, with great advantage, the administration of an anæsthetic, the use of the sound for the first exploration of the bladder, and the immediate removal of the stone, by crushing if practicable, if one is discovered. Just as in earlier years a preliminary paracentesis of an ovarian tumour was often found to be an unfavourable antecedent to an ovariotomy, so may the passing and use of a sound be a preface, which we would avoid, to the subsequent removal of the stone, however this may be effected. No more desirable object can be wished for in connexion with the practical use of these rays than their adaptation to determining the presence, position, and constitution of the various stony concretions that have their habitat in the human urinary organs. I have some confidence in expressing the belief that the time is not far distant when, under the circumstances I have mentioned, these Roentgen rays will enable us to see the stone instead of feeling it, just as in a recorded case [20] where a Murphy's button, lost in a remote corner of the intestines, was thus found by my old friend and colleague, Mr. Mitchell Banks.

NEUROLOGICAL FRAGMENTS.

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(*Continued from* THE LANCET *of Feb. 23rd, 1895.*)

No. XVI.

THE LOWEST LEVEL.—NEGATIVE AND POSITIVE SYMPTOMS.—THE PHYSIOLOGICAL ELEMENT IN SYMPTOMATOLOGIES.—REMARKS ON THE SYMPTOMATOLOGY OF FRACTURE-DISLOCATIONS OF THE SPINE CRUSHING THE CERVICAL CORD COMPLETELY ACROSS BELOW THE EMERGENCE OF THE PHRENIC NERVES.—CHARLTON BASTIAN'S RESEARCHES ON COMPLETE TRANSVERSE LESIONS OF THE CORD ABOVE THE LUMBAR ENLARGEMENT; LOSS OF THE KNEE-JERKS FROM THOSE LESIONS; OBSERVATIONS BY SHERRINGTON.

I THINK a good illustration of the value of segregation of centres of what I call the homologous series [1] (those within the cord, the medulla, the pons, and within some morphological divisions of the central nervous system higher than the pons) with what I call Superior Centres,[2] into one anatomico-physiological community (Lowest Level of the central nervous system) can be given by an analysis of the symptomatology of certain cases of fracture dislocation of the spine—those in which the cervical cord is crushed completely across below the emergence of the phrenic nerves. We are unable to deal methodically with the exceedingly wide and very complex symptomatology of a case of this kind as answering directly to only a negative lesion of some of the infra-phrenic segments of the cervical cord. We are concerned in our analysis of it with uninjured centres, bulbar and frontal of the lowest level above that negative lesion (I call these Citerior centres) as well as with uninjured centres, dorsal, lumbar and sacral, of the level below it (I call these Ulterior centres), and sometimes with both citerior and ulterior centres at one time. We are concerned with very many, presumably with nearly all, centres of the lowest level, certainly not with those of the spinal cord alone. We have to attempt an answer to the question "How does the central nervous system (with the parts of the body it represents) 'get along' after it has been cut in two at the critical part mentioned?"

Here is an illustration of a doctrine I have often stated,—that part of symptomatologies in maladies in which there are local negative lesions of the nervous system caused by pathological processes, or by injury, is not the direct but the indirect result of those negative lesions—is the outcome of activities of undamaged, healthy structures—is a problem not in pathology but in physiology. There is a duplex condition of two opposite elements, one negative resulting from the local negative lesion and another positive from activity or over-activity of more or less of the healthy remainder of the nervous system. I have in several places illustrated the principle indicated by cases of paralysis of ocular muscles from lesions of the nerve trunks to them; in such a case it is indisputable that great part of the symptomatology, very evidently the "erroneous projection" and "secondary deviation," is owing to over-activity of perfectly healthy nervous and other structures, and that very little of it is owing to the negative lesion of the motor nerve, the only part which is the seat of a *pathological* change, to the ocular muscle paralysed. I have applied the same principle to cases of aphasia;[3] the words, syllables or jargon which a partially aphasic person does get out arise during activities of healthy nervous arrangements; the disease, in the proper sense of pathological change, is answerable only for the negative lesion causative of the patient's inabilities in speech. I have applied the principle to insanities[4]; the positive mental symptoms (illusions, delusions, &c.) in cases of insanity arise during activities of healthy nervous arrangements of the highest centres of the cerebral sub-system; they signify evolution going on on a lower range than normal of those centres; disease causes the dissolution of the highest range or ranges in these cases which is only correspondent to the negative mental state co-existing with the positive mental symptoms, or rather with the positive mental state which these symptoms sample. As I attach great importance to the principle mentioned I will speak of it from another point of view.

We must in scientific exposition always be on our guard against a popular and erroneous use of the important word "cause." Although in ordinary talk we say that the opening of flood-gates is the cause of the flowing of water previously pent up, yet, properly speaking, the cause of the flow is in the water being on a high level; there is only the removal of an obstacle; the water is not *caused* to flow, but is *permitted* to flow. Properly speaking, cutting the vagi is not the "cause" of the heart's beating more frequently; the heart is "let go" and then does its inherent most unchecked. To resume. Negative lesions, the results of pathological processes or of injury, are not the cause of "erroneous projection" and of "secondary deviation" in ocular paralyses, nor of the utterance of words, &c., which those who are partially aphasic manage to get out, nor of any positive mental symptoms in cases of insanity; nor is the negative (transverse) lesion of the cervical cord the cause of the numerous different positive symptoms which occur in cervical fracture dislocation cases. I will give three more illustrations of the principle.

More or fewer of the fibres of the posterior columns of the cord are destroyed in a case of tabetic ataxy; so far there is a structural and functional vacuum in some part of the course of certain sensory fibres extrinsic downwards of the lowest level; this, a nothing, cannot be the cause of the something, the patient's progression, however imperfect and erratic his gait may be. The problem here is: How does the nervous system manage the getting along somehow without the fibres mentioned? I will now give a very simple illustration of the principle. When a man has paralysis of the extensors of his feet (cannot dorsi-flex) he, in order to clear the ground in walking, lifts his thighs much more than normal; it would be absurd to say that any disease *causes* this thigh-lifting. Speaking figuratively, disease is responsible for the paralysis of the extensors of the feet; the thigh-lifting is owing to benevolent over-action of other, healthy, centres for flexion

[20] Brit. Med. Jour., Oct. 24th, 1896.
[1] No. xiv., THE LANCET, Feb. 16th, 1895.
[2] No. xv., THE LANCET, Feb. 23rd, 1895.
[3] Lumleian Lectures, THE LANCET, vol. i., 1890.
[4] The Factors of Insanities, Medical Press and Circular, June 13th, 1894.

of the thigh on the hip to compensate for the effects of that paralysis. The duplex symptomatology is plain enough here; the effect of the negative lesion, paralysis of the extensors of the feet, and the effect of over-action of healthy motor centres, the thigh-lifting, are seen separate, the muscles differently concerned being in different regions. But I submit that the principle which this case so simply illustrates applies in more difficult cases—not only to cases in which we can observe the effects of opposite states of separate *muscles*, but to cases *with opposite states of different movements of the same muscles*.[5] I here take another kind of case; I admit that the application of the principle to it is highly speculative. In "writer's cramp" there is, I suppose, loss or incompetence of a few of the *most special* movements of the hand and arm, represented by certain lowest motor centres, of writing; from the strong but abortive attempt of the higher levels to develop these movements fully there is produced over-action forcing, of other, *more general*, movements for writing, movements of the same muscles; there is "paralysis with cramp" in this malady.[6]

I give one more example. I have[7] applied the same principle in the explanation of the ataxic gait of tabetics—suggesting that this incoördination is owing to paralysis. I should have said paralysis, or rather paresis, *in effect*, the negative central lesion being a sensory one. There is in an early stage on the effort to walk (which effort, the operation being started by "volition," is from the highest cerebral centres) underdoing of the *movement* in which the peroneus longus *muscle* is chiefly engaged and there is over-doing of the antagonist *movement*, that in which the tibialis anticus *muscle* is chiefly engaged. I suppose the motor centre (lowest level) for the peroneal movement is not, consequent on abrogation of muscular-sense nerves, "informed" of the state of the muscles concerned in the movement and is thus not kept "ready to act" and does not act efficiently in locomotion at the call of the highest centres. There is "paralysis in effect"[8] On strong efforts to make it act the associated centre for the tibialis anticus movement is made to over-act. I have not attempted further analysis of tabetic ataxy, but imagine that the same principle applies to the whole of its phenomena.

The negative lesions implied in all the illustrations are alone the result of disease, in the proper sense of pathological process, or are the result of injury; the positive symptoms in every one of the cases instanced occur during activities of healthy nervous arrangements and the cases, so far as these positive symptoms go, are problems not in pathology but in physiology. The negative lesions, although certainly not the *cause* of, may perhaps be said to be "constructively accountable for," the positive or superpositive symptoms.

The principle I have mentioned and illustrated by such very different cases is, when applied to the fracture dislocation case, not the mere truism that physiological knowledge is required to understand its very complex symptomatology; the assertion is that a great part of that symptomatology itself is in the domain of physiology—so much of it as is the outcome of activity of healthy centres. Or, it may be said, to use a phrase I once heard or read, that there is "physiology in difficulties." He who is studying the "goings-on" of the thermal, circulatory, respiratory and digestive systems—to be for brevity sometimes spoken of together as "the four systems"—after their nervous mechanisms have been mutilated by the cutting in two of the central nervous system at the critical part mentioned in the fracture dislocation case of man, is as certainly dealing with a problem in physiology as he is who is studying the "goings-on" of these four systems in a dog, the infra-phrenic cervical cord of which animal has been cut across by a knife in the laboratory. I go further and say, as certainly as he is who is studying the ordinary coöperations and antagonisms of these "four systems" in an entire man. In the fracture dislocation case of man, the centres ulterior as well as citerior of the local transverse lesion of the cervical cord are uninjured, and we have to consider how these centres continue to work, and to work together, in the new circumstances; they are healthy or are so until they are too much affected by supervening great heat and high venosity (the states produced by these agents are only departures from the normal—being excesses of natural stimuli); or, as perhaps happens, until some of them become subjects of morbid changes spreading from the traumatic lesion.

In the cervical fracture dislocation case there is little short of an universal symptomatology. There are symptoms referable to the extremes of the level. There is, from lesion of fibres in the cord for the cervical sympathetic, an ocular symptom, inability of the pupils to dilate in a dim light when shaded (Hutchinson).[9] I have not examined the state of the sphincter ani; the external sphincter will be paralysed, at any rate so far as its "voluntary" service goes. There are symptoms so different as the pupillary one mentioned, infrequent pulse, high temperature, distension of the abdomen, priapism, loss of the knee-jerks, sweating, and, in some cases, delirium. After a fashion there are sub-maladies referable to the "four systems"—Thermal System (there is fever, high temperature, at least); Circulatory System (infrequent pulse and relaxation of the arteries); Respiratory System (breathing is diaphragmatic solely, there being no movement of the intercostal muscles); Digestive System (distension of the intestines and constipation). There is a symptom referable to the Sexual system, priapism, and sometimes there are seminal emissions. And as to the skin and skeletal muscles there is perfect paraplegia, motor and sensory. There is absence of knee-jerks in all cases so far as I know. I will remark at more length on this symptom.

Cases of Cervical Fracture Dislocation strongly support the now well-known conclusions of Charlton Bastian—that after *complete* transverse destruction of the spinal cord above the lumbar enlargement, the knee-jerks are absent and the legs flaccid; they are so for long periods at any rate.[10] Bastian's conclusions have been confirmed by Bowlby,[11] Thorburn,[12] and Bruns of Hanover. The paper by Bruns[13] is a very valuable record of a case admirably observed. Sherrington has given details of it under the heading *A case of Total Traumatic Lesion of the Spinal Cord at the Junction of the Cervical and Dorsal Regions, by Dr. Ludwig Bruns (Hanover)* in *Brain*, vol. xviii., p. 175. 1895. Gerhardt has published a case of disease of the cord[14] which he thought was counter to Bastian's opinion. In a most excellent paper *On the Condition of the Reflexes in Total Transverse Division of the Spinal Cord*,[15] Dr. Ernest S. Reynolds goes very methodically into the question Bastian has raised. In this paper (p. 171) Dr. Reynolds gives a full account of the case of Gerhardt's patient. Bruns has in another paper shown that the case Gerhardt reports is really in harmony with Bastian's opinion.

It is to be borne in mind that in this note I am dealing with cases of complete tranverse destruction of the cervical cord in most of which cases death occurs in a few days. (Bruns' patient lived 106 days.) I have drawn attention[16] to the fact that "in some dorsal cases under my care the knee-jerks have returned, in one case after being absent for thirty-eight days, and in another for two years; there is in neither case any return of sensation or motion in the legs." I have never seen the knee-jerks exaggerated on their return; they have, on the contrary, been hard to get.

As I may be supposed to be prejudiced in favour of Bastian's conclusions, since they support the hypothesis I have put forward on cerebral and cerebellar influx,[17] I will

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[5] There may be loss of some movements of muscles with persistance of other movements of the very same muscles. This was exemplified by a case I mentioned (No. xii., THE LANCET, Dec. 22nd, 1894), one in which the true respiratory movement of the intercostals was absent, although the "voluntary" movement of the same muscles remained possible.

[6] When the patient comes to be able to write only with the pen stuck between his index and his middle fingers, or when he has to write with his fist, it is evident that more general movements are engaged.

[7] THE LANCET, Jan. 30th, 1875.

[8] In speaking thus of "paralysis in effect" in tabes it seems to me that I am applying certain opinions of Charlton Bastian. Proceedings of the Royal Society, vol. lviii., 1895. *Note on the Relations of Sensory Impressions and Sensory Centres to Voluntary Movements* He is dealing with some experiments by Mott and Sherrington—section of posterior spinal roots causing paralysis. Bastian writes: "The immediate results of this [cutting off all the different stimuli proceeding to the corresponding lesions of the cord] may be presumed to be a lowering of the habitual sub-activity of the motor centres upon which the condition of *tonus* in the muscles depends." See also Mott and Sherrington, *On the Influence of Sensory Nerves upon Movement*, Proceedings of the Royal Society, 1895, p. 481, (both papers are abridged in *Brain*, Winter Number, 1895, pp. 609 and 615).

[9] London Hospital Reports, vol. iii., 1866, p. 362 et seq.; also Note iv., THE LANCET, Jan. 6th, 1894.

[10] On the Symptomatology of Total Transverse Lesions of the Cord, Transactions of the Medico-Chirurgical Society, 1890, lxxiii., p. 151.

[11] Ibid.

[12] Medical Chronicle, May, 1890.

[13] Archiv für Psychiatrie, Band xxv., pp. 1–72.

[14] Deutsche Zeitschrift für Nervenheilkunde, Band vi., pp. 127–135, 1894.

[15] Brain, vol. xviii., p. 148 et seq., 1895.

[16] THE LANCET, March 5th, 1892.

[17] Medical Examiner, April 5th, 1877, and March 23th, 1878.

give some particulars of a dorsal transverse lesion which may seem to tell against Bastian's conclusions.[18] In some long-standing dorsal dislocation-fracture cases with absolute motor and sensory paraplegia the muscles of the legs undergo considerable atrophy, and there is very great diminution of their faradic contractility; this may seem to countenance the doctrine that atrophy of cells of ulterior, lumbar, motor centres secondary to the local transverse lesion causes loss of the knee-jerks. A girl, B. G., aged seventeen, was admitted under my care, July 14th, 1893, for paraplegia consequent on an injury which occurred December, 1891, as we believed a fracture-dislocation about the fifth or sixth dorsal vertebra. There was complete absence of motion in the legs and sensation was quite lost below a line drawn from the sixth dorsal spine to just below the ensiform cartilage; the knee-jerks were absent but there was double ankle clonus. The plantar and abdominal reflexes were obtained. The feet were in the position of talipes equinus with a slight tendency to varus. The skin of the legs was glossy, this betokening some dermal atrophy. There were, I believe, changes in or about the knee-joints not permitting free flexion; but there was nothing in this to hinder getting knee-jerks. (This I have seen in other long-standing dorsal dislocation-fracture cases.) There was incontinence of urine; when admitted the bladder emptied itself at intervals (reflex incontinence) but later she was constantly wet. There was also incontinence of fæces, no power at all of holding flatus. The catamenia were normal. Her temperature was on many days about normal, sometimes however as low as 97° F. Every now and then for a few days at a time it fluctuated, being sometimes as high as 102°, once 103·5°, and sometimes slightly below normal (97°). To give one example of these fluctuations. On Dec. 31st, at 2 A.M., 97°; at 6 A.M., 100·2°; at 10 A.M., 98°; at 2 P.M., 100·4°; at 6 P.M., 101·2°; at 10 P.M., 100·8°. Jan. 1st, at 2 A.M., 102·4°; at 6 A.M., 100·6°; at 10 A.M., 99·8°; at 2 P.M., 98·4°; at 6 P.M., 101°; at 10 P.M., 97·8°. Generally speaking the temperature was nearly always, often very slightly, above normal; never below 97° and never continuously at that. When she was admitted she had bad bedsores; these healed. During her stay in the hospital she was in good spirits and occupied herself in needlework and in reading; she slept well and had a good appetite.

As all the muscles of B. G.'s legs required a strong faradic current to produce contraction, and as the vastus internus on the right side (Dr. James Taylor) could not be made to contract at all, it may seem that the absence of the girl's knee-jerks was the result of changes in certain ulterior motor centres secondary to the transverse lesion. But in November, 1893, the knee-jerks returned and were obtainable, becoming more brisk, until the patient's discharge on May 19th, 1894, although no, or no other, improvement—except that the right vastus internus now re-acted to a strong faradic current—occurred in her legs.

The return of the knee-jerks (after several, probably after very many, months' absence, be it remembered) in the circumstances mentioned is a difficulty to the hypothesis that secondary changes were causative of the previous absence of the jerks, as much as it is to the opinion I adopt from Bastian. The absence of the knee-jerks with presence of ankle clonus at the time of admission, the former presumably since the accident, in this girl's case is noteworthy, and may imply that the lesion was not absolutely transverse.

I mention another case. Dr. Bastian permitted me to see a male patient of his who had perfect paraplegia, motor and sensory, with exaggerated knee-jerks and ankle clonus. This case was taken to tell strongly against Bastian's opinion, but that the lesion was not in this man's case completely transverse was proved by the patient's recovery. Dr. Bastian has recorded this important case in his *Hysterical or Functional Paralysis, p. 67.* Dr. Ernest S. Reynolds,[19] after mentioning similar cases, remarks: "It appears, then, that if the cord is totally divided the knee-jerk is lost, but if only *compressed even to the extent of causing total loss of motion and sensation in the legs* the knee-jerk is retained" (no italics in original).

In some dorsal cases there is loss of the knee-jerks and persistence of the superficial reflexes (Bowlby); a state of things difficult to account for on the hypothesis of secondary changes in ulterior motor centres, and, I may add, on the hypothesis of shock.

The following remarks by Sherrington are of great interest; they deal with the effects of transverse lesion of the cord in dogs and monkeys and with the case of decapitation in man: "It has been recently pointed out by Dr. Bastian and by Mr. Bowlby that in man, after complete transverse severance of the cord in the dorsal region, the knee-jerks, far from becoming exaggerated, as they do in the dog and monkey, disappear and do not return. I have just stated that in the dog and monkey they disappear immediately after the severance, but return before long and become exaggerated, and that in the latter animal their abeyance may endure for from one to three weeks. It may be argued that in man the period of abeyance may be simply longer, owing to the spinal shock being greater, and it is to be remembered that the clean sections performed in the laboratory are less calculated to cause spinal shock than the rough lesions brought about by accident and disease. But the duration of the absence of the knee-jerks seems too prolonged in some of the clinical cases reported to be explained, I think, by any collateral shock. I cannot resist the impression that there exists between the physiology of the cord of man and laboratory animals in this respect a really considerable difference. It has been pointed out that after decapitation by the guillotine the knee-jerks have been obtainable for a couple of minutes or so after the head has left the body. This has been argued as showing that when the section is clean there is absence of shock and the knee-jerks persist. But, as stated above, in laboratory animals immediately after section of the cord the jerk is obtainable for about a couple of minutes, and then it dies away to return after a variable but always considerable interval. The initial persistence of the jerks is, I take it, of a significance altogether other than its later re-appearance; it is an indication that the condition of the central part of the reflex arc on which the jerk depends is not immediately altered by being cut off from the cerebrum—that is, has in it, so to say, a store of cerebral influence which is not exhausted for a couple of minutes or so; or that the tide of spinal metabolism takes a certain though short time to sink to that level at which it is too low for the execution of the jerk. The real difference exists, I take it, between the spinal physiology of the ordinary laboratory animals and that of man in that the spinal afferents of man do not of themselves suffice to keep the metabolism of his spinal motor cells sufficiently brisk for the production of that muscular tonus which is the physiological substance of the jerk phenomenon. In other words, in man the cerebral component of spinal tonus is, as compared with the local or spinal component, disproportionately greater. In conformity with this, it has been pointed out by Bastian that the superficial reflexes are usually in man extremely feeble after total transverse lesion of the cord, instead of being exaggerated as in the laboratory experiments."[20]

In the next note I shall again deal with the symptomatology of cervical fracture-dislocation cases.

[18] I may here remark that it is only on the complete cutting off of both cerebral and cerebellar influence that I have supposed the knee-jerks to be lost from supra-lumbar transverse lesions of the spinal cord. The jerks are, however, lost in some cases of tumour of the cerebellum.

[19] Op. cit., p. 171.

[20] Sherrington: Note on the Physiology of the Spinal Cord, St. Thomas's Hospital Reports, vol. xxiii., 1894.

CONGENITAL ABSENCE OF THE OVARIES WITH RUDIMENTARY UTERUS.

BY JOHN RAMAGE, M.D. ABERD.

THE following case is of interest on account of its comparative rareness and as showing the necessity of making a most careful examination in every case of amenorrhœa lasting for any considerable time.

The patient was a woman aged twenty-three years who had been married eight months. She consulted me in the early part of October, 1895, about the absence of menstruation. She was of a fair complexion, medium height, rather slim build, and was one of eight survivors of a family of seventeen. She had never menstruated, but when about thirteen years of age she had a violent stomach-ache, and her elder sister, thinking the pain to be premonitory to menstruation, gave her a heroic dose of pennyroyal, but without the desired effect. Since then she

had never had any of the symptoms usually present at or about the menstrual period. She had no desire for sexual intercourse and little if any feeling of pleasure during its performance. The breasts were moderately well developed and though rather slim her figure was fairly well proportioned. Her general health was good. She had never suffered from typhoid or other fever or from any acute disease, with the exception of a slight attack of influenza about four years ago, and she had never had an accident of any kind. The family history of the patient was as follows. Her father died at the age of fifty years from a chest affection which lasted for twelve months and resulted from the bursting of a pulmonary bloodvessel while lifting a heavy piano-case. Her mother was alive and healthy and had had seventeen children, the last two being twins. Nine children died young from infantile disorders. The survivors were all healthy. The eldest sister was married, had one child and expected another shortly, and her menstruation since puberty had been regular. The next sister, aged fifteen years, and the youngest sister, thirteen years of age, had neither as yet menstruated. My patient had consulted several medical men in her neighbourhood without obtaining much satisfaction. One told her "not to bother; she would be all right when she reached the age of twenty-one years"; another gave her a mixture containing iron and directed her "to continue for a few weeks and she would be better," and so on. I arranged to visit her on the following day for the purpose of making an examination. I found the external genitals quite normal in appearance and the vagina, os, cervix, &c., to digital examination and as viewed with the speculum also apparently normal, but bimanual palpation failed to map out the uterus or ovaries. I introduced a uterine probe through the cervix for an inch and a quarter and it refused to go further, the direction taken by it being that usually assumed by an anteverted uterus. Thinking the obstruction to the further progress of the sound might be due to an acute anteflexion which I had not been able to distinguish by digital examination I introduced, after heating and oiling, a No. 6 gum-elastic bougie in the hope that it might pass any obstruction offered by an anteflexion, but with the same result—i.e., it only passed for an inch and a quarter. Examination per vaginam showed no trace of ovary on either side, and a careful and exhaustive examination per rectum yielded the same negative result. After having completed my examination I expressed the opinion to my patient that she had no ovaries and only a rudimentary womb, that she would never menstruate, and that she could not possibly conceive, and proposed that she should see Dr. R. T. Smith of Soho Hospital to get a corroborative or other opinion. I informed Dr. Smith of the case and she went as directed to be examined by him. He arrived at the same opinion as expressed by me, the only point of difference being that he thought the ovaries might be present, though in a rudimentary state as a result of arrested development.

In connexion with this case I would, as before remarked, strongly advise that in all cases of continued amenorrhœa a most careful examination should be made—and more especially in those cases in which the menstrual function has been unduly delayed or never occurred, and would strongly deprecate a routine practice of prescribing medicines prior to examination in the hope that good will result.

Regent's-park-road, N.W.

GLASGOW OBSTETRICAL AND GYNÆCOLOGIGAL SOCIETY.—The second meeting was held on Nov. 25th. Professor Murdoch Cameron showed:—1. Two Dermoid Tumours of the Ovaries from a patient whose most recent confinement took place only five months ago. One of the pedicles had two turns on it and the corresponding tumour was of deep, livid hue. Two wax casts of the tumours showed their appearance when fresh. 2. A small Tumour from Labium Magus. 3. Ovaries removed from a case of Bleeding Fibroid.—Mr. Beatson read a communication on the Value of Cachexia in the Diagnosis of Malignant Disease. He discussed the nature of the so-called cachexia, illustrating his subject by reference to the history of several cases that had been under his care, and said that he did not believe in any special cancerous cachexia, attributing it rather to ulceration of the growths and subsequent absorption of the septic products or to repeated hæmorrhages.—Professor Murdoch Cameron, Dr. Sloan, Mr. Stuart Nairne, and Dr. Stark afterwards took part in the discussion.

ON THE "SERO-DIAGNOSIS" OF TYPHOID FEVER.

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(*Continued from p. 1583.*)

PART II.

EXAMINATION OF CASES.

IN Part I. of this paper the nature of the reaction on which is based the serum diagnosis of typhoid fever has been briefly given. The method adopted has also been explained.

During the last four months we have, with the assistance of several of our colleagues, examined the blood of patients affected with what was clinically typical typhoid fever in various stages. We have also investigated in the same way a smaller number of cases of some other kinds of febrile diseases. Somewhat against our will we have also been obliged in a certain number of instances to examine the blood of cases of a doubtful nature. We have to thank Dr. Niven, Dr. Leech, Dr. Ashby, Dr. Dreschfeld, Dr. Reynolds, Dr. R. W. Marsden, Dr. Davies, Dr. Melland, and others for the cases of which they have given us the opportunity to examine the blood or secretions. It is, however, to Dr. R. W. Marsden, the resident medical officer at the Monsall Fever Hospital, that we are most indebted for the supply of specimens answering exactly our requirements, and for giving us later the clinical data which we thought would throw light on the subject. Our examinations, with very few exceptions, have been carried out jointly, and the results observed by both of us. These we have recorded in the accompanying table under various headings, which will be easily understood by reading the previous paper.

Our results confirm entirely those announced by Widal four months ago. We may safely make the following statements:—

1. Out of twenty-five cases of undoubted typhoid fever which were examined there was not one in which the blood did not give rise to agglomeration of the bacilli sooner or later.

In one case (Nos. 21, 22, and 34) a specimen taken on the seventh or eighth day of the illness (No. 21) gave a feeble reaction; another specimen (No. 22) received by us the next day gave no reaction. In this case the quantity of blood sent for examination was very small and the blood was very near the sealed end of the tube, so that there was a possibility of the fluid having been over-heated. The same possibility had to be kept in mind in No. 20; in this case no reaction was obtained with the blood on the twelfth day, whilst it was distinct on the twenty-fifth day (No. 30) of the illness. These discrepancies may not be due to error of manipulation, but there was good reason to believe that they were. They are the only two exceptions in a series of twenty-eight specimens. In one case the error was corrected by the examination of another specimen collected nearly at the same time, so that the aberrant results amount to 1 in 27—i.e., 3·7 per cent.—if we base our estimate on the number of specimens examined; or 1 in 25—i.e., 4 per cent.—if we refer more specially to cases.[1]

2. Out of ten cases which were certainly not cases of typhoid fever not one was found to give the reaction. Among these cases were some of scarlet fever, erysipelas, mumps, puerperal fever, tuberculosis, some of which were complicated with suppuration, angina, otitis, bronchitis, nephritis, diarrhœa, delirium, &c. (complications also present in cases of typhoid fever). This, when associated with results obtained by various other observers, shows that, in a case of fever, if a few days after the onset the blood gives a negative reaction when tested by Widal's method the case is not one of typhoid fever.

[1] It must be remembered, however, that this source of error was temporary, for on further examination a positive reaction was obtained.

TABLE GIVING THE RESULTS OF OBSERVATIONS MADE BETWEEN JULY 13TH AND NOV. 17TH, 1896.

Cases in which the Clinical Diagnosis of Typhoid Fever was Certain, or Practically Certain, at the Time of or after the Examination of the Blood for the Reaction.

No. of specimen.*	No. of observation.	Day of illness.	No. of days of observation after collection.	State of blood serum.	Proportion of serum to culture.	Time of observation after mixture.	Reaction present + absent 0	Motility of bacilli.	Agglomeration. Rapidity of.	Agglomeration. Size of clumps.	Severity of case.	Age of patient.	Sex.	Character of temperature curve.	Maximum temperature.	Minimum temperature.	Diarrhœa.	Size of spleen.	Rose spots.	Mental condition.	Previous attack of typhoid fever.	Complications and sequelæ.
1	1	21st	1	Fluid	1–10	5 m.	+	Absent	Rapid	Large	Moderate	—	—	—	—	—	—	—	—	—	—	—
	2	,,	,,	,,	1–20	5 m.	+	,,	—	,,	—	—	—	—	—	—	—	—	—	—	—	—
	3	,,	2	,,	,,	48 h.	+	Slight	—	,,	—	—	—	—	—	—	—	—	—	—	—	—
	4	,,	6	,,	,,	144 h.	+	Distinct	—	,,	—	—	—	—	—	—	—	—	—	—	—	—
6	5	12th	1	Fluid	1–10	3 m.	+	Slight	Rapid	Large	Severe	22	F.	Normal	102°	100·6°	None	Enlarged a little	None observed	Quiet delirium	None	Bronchitis, laryngitis, icterus
	6	,,	,,	,,	,,	4 h.	+	Absent	—	,,	—	—	—	—	—	—	—	—	—	—	—	—
7	7	16th	1	Fluid	1–10	3 m.	+	Absent	Rapid	Large	Very severe	9	M.	Normal, with unusually large fluctuations	104	99·4	Slight	Enlarged a little	A few	Irritable and delirious	None	Bronchitis, laryngitis
	8	,,	,,	,,	,,	4 h.	+	,,	—	,,	—	—	—	—	—	—	—	—	—	—	—	—
8	9	10th§	1	Fluid	1–10	5 m.	+	Slight	Rapid	Large	Severe	6	F.	,,	104°	99°	None	Considerably enlarged	A few	Very irritable and delirious	None	Double otitis
	10	,,	,,	,,	,,	4 h.	+	Considerable	—	,,	—	—	—	—	—	—	—	—	—	—	—	—
9	11	14th	1	Fluid	1–10	2 m.	+	Absent	Rapid	Large	Moderate (duration of fever 1 month)	14	M.	Normal	104·6	101·2	Slight	Much enlarged	None observed	Irritable and drowsy	None	None
	12	,,	,,	,,	,,	4 h.	+	,,	—	,,	—	—	—	—	—	—	—	—	—	—	—	—
10	13	23rd	1	Fluid	1–10	1 m.	+	Very slight	Rapid	Large	Moderate	19	M.	Prolonged defervescence	104	99·4	Yes	Much enlarged	A few	Clear	None	None
11	14	16th	1	Fluid	1–10	5 m.	+	Slight	Rapid	Large	Moderate	33	M.	Marked remissions	103·6	99°	Yes	Enlarged	Several	Clear	None	Peritonitis
	15	,,	24	,,	1–10	10 m.	+	Considerable	Slow	Distinct	—	—	—	—	—	—	—	—	—	—	—	—
12	16	21st	1	Fluid	1–10	5 m.	+	Considerable	Slow	Large	Moderate	13	M.	Normal	103°	100°	Slight	Enlarged	None observed	Drowsy	None	None
	17	,,	24	Dry	1–10	5 m.	0	Extreme	0	0	—	—	—	—	—	—	—	—	—	—	—	—
	18	,,	,,	,,	,,	1 h.	0	,,	0	0	—	—	—	—	—	—	—	—	—	—	—	—
	19	,,	,,	,,	1–2	5 m.	0	,,	0	0	—	—	—	—	—	—	—	—	—	—	—	—
	20	,,	,,	,,	,,	1 h.	0	,,	0	0	—	—	—	—	—	—	—	—	—	—	—	—
14	21	22nd	1	Fluid	1–10	2 m.	+	Slight	Rapid	Large	Severe	19	F.	Very prolonged pyrexia	104°	100·4°	Slight	Slightly enlarged	2 only seen	Clear	None	Bronchitis and hæmorrhage
	22	,,	6	,,	,,	2 m.	+	Absent	Rapid	,,	—	—	—	—	—	—	—	—	—	—	—	—
	23	,,	24	,,	1–2	1 m.	+	Slight	,,	,,	—	—	—	—	—	—	—	—	—	—	—	—
	24	,,	,,	,,	1–10	,,	+	,,	,,	,,	—	—	—	—	—	—	—	—	—	—	—	—

	23	,,	24	,,	1–2	1 m.	+	Slight	,,	,,	—	—	—	—	—	—	—	—	—	—	—	—
	24	,,	,,	,,	1–10	1 m.	0	Extreme	0	0	—	—	—	—	—	—	—	—	—	—	—	—
	25	,,	,,	,,	,,	1 h.	0	,,	0	0	—	—	—	—	—	—	—	—	—	—	—	—
15	26	20th	1	Fluid	1–10	1 m.	+	Absent	Rapid	Large	Severe	29	F.	Unusually prolonged pyrexia (7 weeks)	104·4°	100°	Yes	Slightly enlarged	2 or 3 doubtful	Clear	None	Pneumonia
	27	,,	6	,,	1–10	1 m.	+	,,	,,	Small	—	—	—	—	—	—	—	—	—	—	—	—
23	28	15th	1	Fluid	1–10	5 m.	+	Slight	Rapid	—	Mild	12	M.	Normal	102·6°	101°	None	Much enlarged	Several	Irritable and drowsy	None	None
	29	,,	2	,,	1–2	2 m.	+	,,	,,	—	—	—	—	—	—	—	—	—	—	—	—	—
	30	,,	,,	,,	1–20	2 m.	+	Extreme	0	—	—	—	—	—	—	—	—	—	—	—	—	—
	31	,,	,,	,,	,,	1 h.	+	Considerable	Slow	Some well-marked	—	—	—	—	—	—	—	—	—	—	—	—
	32	,,	,,	Dry	1–10	5 m.	0	Extreme	0	—	—	—	—	—	—	—	—	—	—	—	—	—
	33	,,	,,	,,	,,	2 h.	+	Considerable	Very slow	Very small	—	—	—	—	—	—	—	—	—	—	—	—
	34	,,	,,	,,	1–2	10 m.	+	,,	Slow	Small	—	—	—	—	—	—	—	—	—	—	—	—
24	35	23rd	1	Fluid	1–10	2 m.	+	Absent	Slow	Large	Mild (admitted at end of attack)	29	M.	?	103·2°	101°	None	Much enlarged	A few	Clear	None	None
26	36	10th	1	Fluid	1–10	2 m.	+	Slight	Rapid	Large	Moderate	23	M.	Abnormal (fell to 98·4 early in second week)	103·4°	98·4°	Yes	Much enlarged	None observed	Clear	None	Hæmorrhage
	37	,,	2	Dry	,,	2 m.	+	Extreme	Slow	Small, imperfect	—	—	—	—	—	—	—	—	—	—	—	—
	38	,,	,,	,,	1–2	2 m.	+	,,	,,	—	—	—	—	—	—	—	—	—	—	—	—	—
27	39	37th	1	Fluid	1–10	2 m.	+	Slight	Rapid	Large	Severe	21	M.	Unusually prolonged	104·8°	99·6	Yes	considerably enlarged	Several	Delirious	None	Bronchitis
	40	,,	2	,,	1–20	2 m.	+	Absent	,,	,,	—	—	—	—	—	—	—	—	—	—	—	—
	41	,,	,,	,,	1–30	2 m.	+	,,	,,	,,	—	—	—	—	—	—	—	—	—	—	—	—
	42	,,	,,	,,	1–40	2 m.	+	,,	,,	,,	—	—	—	—	—	—	—	—	—	—	—	—
	43	,,	,,	,,	1–50	2 m.	+	Slight	,,	,,	—	—	—	—	—	—	—	—	—	—	—	—
	44	,,	,,	,,	1–90	2 m.	+	,,	,,	,,	—	—	—	—	—	—	—	—	—	—	—	—
	45	,,	,,	,,	1–150	2 m.	+	,,	Slow	Small	—	—	—	—	—	—	—	—	—	—	—	—
	46	,,	,,	Dry	1–20	2 m.	+	,,	Rapid	Large	—	—	—	—	—	—	—	—	—	—	—	—
28	47	27th	1	Fluid	1–10	2 m.	+	Considerable	Slow	Small	Moderate—admitted at end of attack	24	M.	?	104·4°	—	Yes	Slightly enlarged	A few	Clear	None	None
33	48	15th	1	Fluid	1–10	2 m.	+	Nearly absent	Very rapid	—	Moderate	23	M.	Marked remissions	103·4°	99°	Yes	Much enlarged	Several	Clear	None	None
	49	,,	3	,,	,,	2 m.	+	Absent	Rapid	Small	—	—	—	—	—	—	—	—	—	—	—	—
21	50	7 or 8th	1	Fluid	1–10	5 m.	0	Extreme	0	0	See below (34)	—	—	—	—	—	—	—	—	—	—	—
	51	,,	,,	,,	,,	5 h.	+	Slight	Slow	Small	Doubtful case	—	—	—	—	—	—	—	—	—	—	—
22 same as 21	52	8th	1	Fluid (overheated)	1–10	5 m.	0	Extreme	0	0	—	—	—	—	—	—	—	—	—	—	—	—
	53	,,	,,	,,	,,	2 h.	0	,,	0	0	—	—	—	—	—	—	—	—	—	—	—	—
34 same as 21	54	21st	1	Fluid	1–10	2 m.	+	Absent	Slow	Small	Mild	22	M.	Abnormal	103°	97·4°	Yes (slight)	Slightly enlarged	Doubtful	Clear	None	None
	55	,,	,,	,,	,,	4 h.	+	,,	,,	Large	—	—	—	—	—	—	—	—	—	—	—	—

TABLE GIVING THE RESULTS OF OBSERVATIONS MADE BETWEEN JULY 13TH AND NOV. 17TH, 1896—*(continued)*.

Cases in which the Clinical Diagnosis of Typhoid Fever was Certain, or Practically Certain, at the Time of or after the Examination of the Blood for the Reaction—(continued).

No. of specimen.*	No. of observation.	Day of illness.	No. of days of observation after collection.	State of blood serum.	Proportion of serum to culture.	Time of observation after mixture.	Reaction present + absent 0.	Motility of bacilli.	Agglomeration.		Severity of case.	Age of patient.	Sex.	Character of temperature curve.	Maximum temperature.	Minimum temperature.†	Diarrhœa.	Size of spleen.	Rose spots.	Mental condition.	Previous attack of typhoid fever.	Complications and sequelæ.‡
									Rapidity of.	Size of clumps.												
	56	21st	3	Dry	1–10	5 m.	+	Absent	Slow	Small	—	—	—	—	—	—	—	—	—	—	—	—
	57	,,	6	,,	,,	2 m.	+	S'light	Rapid	Large	—	—	—	—	—	—	—	—	—	—	—	—
	58	,,	,,	,,	1–5	2 m.	+	,,	Rapid	Large	—	—	—	—	—	—	—	—	—	—	—	—
35	59	18th	1	Fluid	1–10	2 m.	+	Absent	Slow	—	Severe	16	F.	Normal	104·6°	100°	Yes	Much enlarged	A few	Clear	None	Tympanitis
	60	,,	3	,,	,,	2 m.	+	,,	,,	Small	—	—	—	—	—	—	—	—	—	—	—	—
	61	,,	6	Dry	,,	5 m.	+?	Extreme	? Slow	? Small	—	—	—	—	—	—	—	—	—	—	—	—
	62	,,	,,	,,	1–5	5 m.	+	,,	Moderate	—	—	—	—	—	—	—	—	—	—	—	—	—
36	63	20th§	1	Fluid	1–10	2 m.	+	Absent	Rapid	—	Mild (admitted at end of attack)	20	M.	?	?	?	None	Much enlarged	Several	Clear	None	?
	64	,,	,,	,,	,,	4 h.	+	Slight	,,	—	—	—	—	—	—	—	—	—	—	—	—	—
	65	,,	3	,,	,,	5 m.	+	Distinct	—	Small	—	—	—	—	—	—	—	—	—	—	—	—
	66	,,	6	Dry	,,	5 m.	?	Diminished	?	?	—	—	—	—	—	—	—	—	—	—	—	—
	67	,,	,,	,,	,,	10 m.	+	,,	Slow	Some large	—	—	—	—	—	—	—	—	—	—	—	—
	68	,,	,,	,,	1–5	10 m.	+	,,	,,	,,	—	—	—	—	—	—	—	—	—	—	—	—
39	69	13th	2	Fluid	1–10	5 m.	+	Considerable	Slow	Small	Moderate	26	F.	Normal ?	104°	?	Yes	Enlarged late	Several when specimen taken	—	—	—
	70	,,	,,	,,	,,	24 h.	+	Absent	,,	,,	—	—	—	—	—	—	—	—	—	—	—	—
	71	,,	,,	,,	,,	48 h.	+	—	—	,,	—	—	—	—	—	—	—	—	—	—	—	—
40	72	37th	2	Fluid	1–10	5 m.	0	Extreme	0	0	Severe	16	M.	Two abnormal sudden rises during fever with scarlatinal-looking rashes.	?	?	Yes	Enlarged	Several	—	None	Occurrence of two scarlatinal eruptions with sudden rise of temperature
	73	,,	,,	,,	,,	20 m.	+	Considerable	Slow	Very small	—	—	—	—	—	—	—	—	—	—	—	—
	74	,,	,,	,,	,,	24 h.	+	Slight	,,	Small	—	—	—	—	—	—	—	—	—	—	—	—
	75	,,	,,	,,	,,	48 h.	+	—	,,	,,	—	—	—	—	—	—	—	—	—	—	—	—
43	76	15th	1	Fluid	1–10	5 m.	+	Slight	Rapid	Small	Mild	47	M.	Normal	102·6°	100·4°	None	Apparently enlarged	Numerous	Clear	None	None
	77	,,	,,	,,	,,	4 h.	+	Very slight	,,	,,	—	—	—	—	—	—	—	—	—	—	—	—
	78	,,	2	Dry	,,	6 m.	+	Slight	,,	,,	—	—	—	—	—	—	—	—	—	—	—	—
44	79	20th	1	Fluid	1–10	5 m.	+	Considerable	Slow	—	Mild	15	F.	Normal	103°	100°	None	A little enlarged	A few	Clear	None	None
	80	,,	,,	,,	,	4 h.	+	Slight	,,	Large	—	—	—	—	—	—	—	—	—	—	—	—

20	81	12th	1	Fluid (possibly over-heated)	1–10	5 m.	0	Extreme	0	0	Severe	5½	F.	Great fall from 12th to 17th day and again on 25th day	105·4°	98·4°	Yes	Enlarged	Fairly typical	Delirious and very restless during pyrexia	None	Slight bronchitis, vomiting, double otitis
	82	,,	,,	,,	,,	24 h.	0	,,	0	0	—	—	—	—	—	—	—	—	—	—	—	—
30 same as 20	83	25th	1	Fluid	1–10	5 m.	+	Extreme	Slow	Small	—	—	—	—	—	—	—	—	—	—	—	—
	84	,,	,,	,,	,,	10 m.	+	,,	,,	Large	—	—	—	—	—	—	—	—	—	—	—	—
18	85	9th	1	Fluid	1–10	5 m.	+	Slight	Rapid	Large	Moderate	12	M.	Normal	104·6°	97·2°	None except on 15th day; pea-soup for 4 days. Blood on 28th day	Not enlarged	No rose spots	Slight delirium with headache and deafness	?	?

Cases in which the Diagnosis (Clinical) of Typhoid Fever was Doubtful at the Time of taking the Sample of Blood and in which no further Evidence of Typhoid Fever was obtained Clinically.

3	86	?	1	Fluid	1–10	5 m.	0	Extreme	0	0	Very doubtful case, probably not typhoid fever; further history of case cannot be obtained	Adult	F.	—	—	—	—	—	—	—	—	—
	87	—	—	—	1–1	5 m.	0	,,	0	0	—	—	—	—	—	—	—	—	—	—	—	—
	88	—	—	—	—	24 h.	0	,,	0	0	—	—	—	—	—	—	—	—	—	—	—	—
4	89	About 8th	1	Fluid	1–10	5 m.	0	Extreme	0	0	Case resembling typhoid fever, but doubtful at time; specimen obtained was found not to be typhoid afterwards	—	—	—	—	—	—	—	—	—	—	—
	90	—	—	—	,,	24 h.	0	,,	0	0	—	—	—	—	—	—	—	—	—	—	—	—
	91	8th	—	—	1–1	5 m.	0	,,	0	0	—	—	—	—	—	—	—	—	—	—	—	—
	92	—	—	—	—	2½ h.	0	,,	0	0	—	—	—	—	—	—	—	—	—	—	—	—
19 same as 32	93	About 5th	1	Fluid	1–10	5 m.	0	Extreme	0	0	Irregular fever suspected to be typhoid; illness indefinite	7½	M.	—	—	—	—	—	—	—	—	—
	94	,,	2	,,	,,	24 h.	0	,,	0	0	—	—	—	—	—	—	—	—	—	—	—	—
32 same as 19	95	About 24 m.	3	Fluid	1–10	5 m.	0	Extreme	0	0	Same case as above, temperature has been practically normal for 14 days	,,	,,	Irregular pyrexia	102·4°	96·4°	No diarrhœa	Not enlarged	None	Normal	—	—
42	96	18th	1	Fluid	1–10	5 m.	0	Extreme	0	0	Moderate fever of doubtful nature	31	M.	Abnormal form of pyrexia	103·4°	100°	None	Much enlarged	None	Delirious	None	Nothing so far
	97	—	,,	,,	,,	3 h.	0	,,	0	0	—	—	—	—	—	—	—	—	—	—	—	—
	98	—	,,	,,	,,	24 h.	?	Considerable	Very slow	Moderate loose	—	—	—	—	—	—	—	—	—	—	—	—
	99	—	2	Dry	,,	10 m.	0	Extreme	,,	0	—	—	—	—	—	—	—	—	—	—	—	—

Cases in which there was a Certain Diagnosis (Clinical) of some Illness other than Typhoid Fever.

13	—	8th	1	Fluid	1–10	5 m.	0	Extreme	0	0	Erysipelas (severe)	—	—	—	—	—	—	—	—	—	—	—
31 same as 13	100	37th	1	,,	,,	5 m.	0	Extreme	0	0	Erysipelas (convalescence) after 3 weeks of pyrexia and cutaneous erysipelas	20	F.	3 weeks pyrexia	104·8°	100·4°	—	—	—	—	—	Subcutaneous abscesses

TABLE GIVING RESULTS OF OBSERVATIONS MADE BETWEEN JULY 13TH AND NOV. 17TH, 1896—*(continued)*.

Cases in which there was a Certain Diagnosis (Clinical) of some Illness other than Typhoid Fever—(continued).

No. of specimen.*	No. of observation.	Day of illness.	No. of days of observation after collection.	State of blood serum.	Proportion of serum to culture.	Time of observation after mixture.	Reaction (present + absent 0)	Motility of bacilli.	Agglomeration. Rapidity of.	Agglomeration. Size of clumps.	Severity of case.	Age of patient.	Sex.	Character of temperature curve.	Maximum temperature.	Minimum temperature.†	Diarrhœa.	Size of spleen.	Rose spots.	Mental condition.	Previous attack of typhoid fever.	Complications and sequelæ.‡
	101	37th	1	Fluid	1–10	4 h.	0	Extreme	0	0	—	—	—	—	—	—	—	—	—	—	—	—
	102	,,	,,	,,	,,	48 h.	0	,,	0	0	—	—	—	—	—	—	—	—	—	—	—	—
	103	,,	6	Dry	,,	5 m.	0	,,	0	0	—	—	—	—	—	—	—	—	—	—	—	—
	104	,,	,,	,,	1–5	5 m.	0	,,	0	0	—	—	—	—	—	—	—	—	—	—	—	—
	105	,,	,,	,,	,,	10 m.	0	,,	0	0	—	—	—	—	—	—	—	—	—	—	—	—
16	106	11th	1	Fluid	1–10	5 m.	0	Extreme	0	0	Scarlatina anginosa (severe)	15	F.	—	104 4°	101°	—	—	—	Delirious	—	Double otitis, &c.
17	107	13th	1	Fluid	1–10	5 m.	0	Extreme	0	0	Scarlatina anginosa (severe)	7	F.	—	105 4°	—	—	—	—	Delirious	—	Double otitis, &c.
31	108	Weeks	1	Fluid	1–10	5 m.	0	Extreme	0	0	General tuberculosis (severe fever)	19	M.	25 days' intermittent pyrexia while under observation	104 2° evening	96° morning	Slight diarrhœa	—	—	—	—	—
37	109	7th	1	Fluid	1–10	5 m.	0	Extreme	0	0	Puerperal fever	42	F.	—	103°	101°	None	Slightly enlarged	—	Drowsy	—	Bronchitis
41	110	5th	1	Fluid	1–10	5 m.	*0	Extreme	0	0	Mumps	—	—	—	—	—	—	—	—	—	—	—
	111	,,	,,	,,	,,	3 h.	0	,,	0	0	—	—	—	—	—	—	—	—	—	—	—	—
	112	,,	,,	,,	,,	24 h.	0	,,	0	0	—	—	—	—	—	—	—	—	—	—	—	—
45	113	37th	1	Fluid	1–10	5 m.	0	Extreme	0	0	Scarlet fever + nephritis on 7th day	7	M.	—	—	—	—	—	—	—	—	Hæmaturia on 7th day
	114	,,	,,	,,	,,	24 h.	0	Slight	0	0	—	—	—	—	—	—	—	—	—	—	—	—
46	115	23rd	1	Fluid	1–10	5 m.	0	Extreme	0	0	Scarlet fever + nephritis on 19th day	8	M.	—	—	—	—	—	—	—	—	Hæmaturia 19th day
25	116	49th	1	Fluid	1–10	5 m.	0	Extreme	0	0	Neurasthenia	49	M.	Variable pyrexia	103°	97 4°	None	Slightly enlarged	None observed	Very neurotic	—	—
											Normal Individuals.											
5	Many	—	5 min	Fluid	1–10	2 m.	0	Extreme	0	0	Apparently normal	41	M.	—	—	—	—	—	—	—	Typhoid fever 26 years ago	—
	—	—	—	—	1–5	4 h.																
	—	—	—	—	1–1	24 h.																
						144 h.																
29	—	—	5 min	—	1–10	5 m.	0	Extreme	0	0	Apparently normal	35	M	—	—	—	—	—	—	—	No previous typhoid	—
	—	—	—	—	—	4 h.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

* In Specimens 6, 7, 8, 9, 10, 11, 12, 14, 15, 16, 17, 23, 24, 25, 26, 27, 28, 33, 34, 35, 36, 37, 38, 42, 43, 44, 45, and 46 the patients were under the care of Dr. Marsden; in Specimens 21 and 22 the patient was under the care of Dr. Dreschfeld; in Specimens 39 and 40 the patients were under the care of Dr. Reynolds; in Specimens 20 and 32 the patients were under the care of Dr. Ashby; in Specimen 18 the patient was under the care of Dr. Davies; in Specimen 3 under the care of Dr. Hamilton; in Specimen 4 under the care of Dr. Leech; in Specimen 19 under the care of Dr. Hepworth; in Specimen 31 under the care of Dr. Melland.

† By minimum temperature is meant the lowest temperature recorded during the fastigium, including the *first morning remission* observed.

‡ Among the complications bronchitis is mentioned only when it constituted a very marked symptom.

§ This indicates that the date of onset was difficult to obtain, the date given being the probable one.

¶ On two occasions only at intervals of three months.

3. The blood of normal individuals does not give any reaction.[2]

4. Regarding the period of the fever during which the reaction was manifest we have observed only one case at the end of the first week; in that case, which was mild and not typical, a very imperfect reaction was obtained at first (No. 21), but as the disease advanced the reaction became more marked (No. 34). We had a case on the ninth day which gave a good, though incomplete, reaction with the ordinary proportion of serum.[3] On the tenth day the reaction was rapid and good, but incomplete in the three cases we observed. On the twelfth day we had two cases, one of which (No. 20), already alluded to, failed to give the reaction; the other gave a rapid though incomplete one. On the thirteenth day one case reacted clearly but slowly and incompletely. On the fourteenth day the only case we observed gave a rapid and complete reaction—i.e., the bacilli were rendered almost instantaneously motionless and formed clumps very rapidly. From the fourteenth day to the end of the third week ten cases came under our notice; in all these cases but three the reaction was complete, and in all but two it was rapid, and sometimes remarkably rapid. In every one of them the reaction was exceedingly clear. We had five cases during the fourth week; three gave a rapid complete reaction and two a slow and incomplete reaction. Two cases on the thirty-seventh day of the illness gave different results, one a rapid complete reaction and the other a slow and very incomplete reaction. It would seem from these results that the reaction was obtained easily from the end of the first week to the end of the fifth week at least, but that it is most uniformly perfect during the third week. (From the cases published by Widal and others we now know that the reaction can already be obtained on the fourth day and is also observable long after the fifth week, but we had no case after that date.)

5. As to the rapidity with which the reaction appears we can say that with the proportion of serum which we generally used the reaction is almost always instantaneous after the ninth day. In one case it was, however, necessary to wait twenty minutes, and in another three hours, before a clear clumping could be made out. In all other cases it was well marked within from two to five minutes.

6 Doubtful cases have on the whole yielded very satisfactory results. Several of those which reacted at a time when the clinical diagnosis was uncertain have proved to be cases which clinically were certainly typhoid fever or were more closely allied to typhoid fever than to any other fevers. One case (42), which has remained doubtful clinically, has remained doubtful from our point of view. *This is the only case where the reaction has seemed to us ambiguous*[4]; this was possibly due to the fact that we had not enough material to try various dilutions. In three other cases (Nos. 3 and 4 and Nos. 19 and 32) we obtained a negative reaction; in two of these the clinical diagnosis confirmed our results later. In one case we were unable to obtain complete clinical data, but from what we were able to gather it is probable that the case was not one of typhoid fever. So that, with one exception, we can say that even in the four cases in which the clinical evidence was not clear the serum diagnosis gave results which seemed reliable. If one studied carefully the whole series of cases it will be evident that there is not one symptom or group of symptoms usually considered typical of typhoid fever, which has been as constant as the serum reaction.

7. The state of the blood or serum is of some importance. The reaction can be obtained both with dry and with fluid serum, but the dry serum loses its immobilising and also its agglomerating properties sooner than the fluid serum. We found in a few cases that fluid serum was still very active at the end of twenty-four days. Dry serum had in some cases lost much of its activity by the end of the sixth day. We have not, however, very accurate data on this point, for, owing to the small quantity of material we had at our disposal, it was difficult to make series of strictly comparable observations. Dry serum seems also less suitable for accurate work than the fluid blood or blood serum, because it is more difficult to measure accurately the quantities of serum and of culture used when the serum is dry than when it is fluid. (These two objections seem to us to militate against the use of dry blood serum instead of fluid serum kept in a sealed pipette. Sealed pipettes are very convenient if a proper form is used and if care be taken to prevent the flame used in sealing the tube from coming too near the blood.)

This paper with the table occupies so much space that we must leave a number of points for discussion on some future occasion. This we do all the more readily that in the present stage of this investigation a simple statement of facts will probably prove more useful than a full discussion based on incomplete data.

Manchester.

[2] That is within the first four hours; after twenty-four hours an imperfect clumping is sometimes observed.

[3] By incomplete reaction we mean one in which the clumping is quite clear, but the bacilli are not rendered completely motionless by the proportion $\frac{1 \text{ serum}}{10 \text{ culture}}$; we say it is very incomplete when the motion is very marked.

[4] This indicates possible error in one case out of forty—i.e., 2½ per cent.

INGUINAL ORCHECTOMY: A NEW METHOD.

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IN certain standard books on operative surgery (Jacobson, Treves) the incision recommended for orchectomy is one extending from a point just below the external ring to the bottom of the scrotum. The object of this long incision is to ensure free drainage of the abundant cellular tissue of the scrotum, in which hæmorrhage is so likely to occur. It must be admitted that a collection of disintegrating blood clot in this region may be a source of intense septic poisoning. It can be shown, however, that this long scrotal incision produces those very evils which it is designed to prevent. In the first place, it gratuitously involves cutting through a large extent of the vascular subcutaneous tissue of the scrotum, and thus directly conduces to hæmorrhage after the operation with its accompanying evils. Having produced the hæmorrhage, the incision provides a ready entrance for septic organisms. This is partly due to the contractility of the scrotal skin, which makes accurate apposition of the edges an impossibility, partly to the difficulty—which, I think, anyone with experience will admit—of keeping a dressing securely applied to the scrotum, and partly to the septic character of the surrounding region of the skin. Moreover, any urine which escapes will drain downwards into the wound. It will be seen that the conditions for the production of suppuration are almost ideal, and, indeed, the after-progress of castration wounds is at present notoriously unsatisfactory.

The method I wish to advocate, which I have ventured to call the inguinal as distinguished from the present or scrotal method, avoids all these evils. It is based on the principle that all interference with the scrotal tissues during the operation is dangerous and unnecessary. An incision of from one inch to one and a half inches long, and slightly curved with its concavity looking downwards and outwards, is made over the external abdominal ring in the line of the spermatic cord. The cord is exposed and isolated. It is then seized with the fingers of the left hand and pulled gently upwards. With a blunt dissector the subcutaneous tissue is freed, first from the lower part of the cord, and then from the testicle as it appears in the wound, the left hand keeping up gentle traction on the cord while this is being done. The testicle is delivered through the small incision and the cord dealt with in the usual manner. Afterwards the scrotum is invaginated through the wound in order to inspect the bed of the testicle for bleeding points, which in the two cases I have operated on were conspicuous by their absence. The incision is then closed by a continuous horsehair suture.

This method has many advantages over the scrotal method of castration. The short incision passes through the firm cellular tissue over the external ring, and the testicle is shelled out without any disturbance of the loose vascular tissue of the scrotum. The slightness of the vascular connexion between the testicle and its bed is shown by the frequency with which it appears in the wound during the operation for the cure of inguinal hernia. Hence the risk of hæmorrhage into the tissues after castration is done away with. Owing to the absence of dartos the edges of the incision can be accurately brought together, and in forty eight hours the risk of infection from without is past.

The delayed union so common in scrotal incisions is avoided. It may be well to include the scrotum in the dressing, pulling it upwards and forwards. Should it, however, slip down on the perineum, the incision will still be well covered by the dressing. If it is thought preferable a sealed dressing may be applied immediately after the operation. Any sealed dressing applied to the scrotum itself would certainly become loosened by the dartos within a few hours, but on the smooth skin over the external ring it may be relied on to keep firm and close. Should any dribbling of urine occur, the incision is well above the end of the penis instead of being immediately underneath it, and is thus much less likely to get wet. Finally, though this point is unimportant, the time of the operation is shortened, because there is less trouble with bleeding and the incision can be more quickly sewn up. In the two cases on which, by the kindness of Mr. R. Clement Lucas, I have had the opportunity of trying this method, healing took place by primary union without rise of temperature or other complication. The long scrotal incision appears to me to be a relic of the time when surgeons recognised that their wounds must of necessity become foul cesspools, to be drained and cleared out on ordinary sanitary principles. A scrotal incision is only necessary when the testicle is much enlarged, or adherent to the skin.

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ON THE BEST METHODS OF REMOVING LARGE CALCULI FROM THE BLADDER.[1]

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I DO not think that I shall be held guilty of any very great exaggeration when I state that in the whole range of surgery there is perhaps no subject which, from time immemorial, has appealed with greater force to the imagination of the surgeon or stirred more deeply his enthusiasm than the operation for the removal of a stone from the bladder. I assume that it has been absolutely proved beyond the shadow of a doubt from the statistics and literature that have been published on this subject in recent years, that when we have to deal with a small or moderate-sized stone or, indeed, with one of very considerable dimensions, whether occurring in the male or in the female, in the adult or in the child, there is nowadays, in the vast majority of instances, only one operation either admissible or justifiable—viz., that introduced by the late Professor Bigelow of the United States and named by him litholapaxy. That operation consists in the rapid crushing of the stone and the complete removal of its fragments at one sitting by means of the aspirator and cannula. So much have I myself been impressed by the principles enunciated by that great surgeon and by the practice inculcated by him that I have now almost completely abandoned every other method of treatment of stone in the bladder in favour of his. The force of this statement will be brought home when I say that amongst my last 300 cases of stone in the bladder, in patients of all ages from two to ninety years, the calculi varying from a few grains up to six and one-eighth ounces, there were only seven cutting operations—viz., two suprapubic, four perineal lithotomies, and one vaginal operation, the remaining 293 cases having been found amenable to treatment by Bigelow's method. And, in order to emphasise still further the almost complete universality with which Bigelow's operation can be applied, I may mention that in the year 1890 I had 106 cases of stone under my care, one and all of which were treated by this method with one death. The fact is that the practised litholapaxist will now approach a stone of the moderate dimensions I have indicated with a confidence and a certainty of success unequalled, I venture to say, in any other great operation in the whole range of modern surgery.

When, however, the stone passes a certain size and weight—when, in short, it becomes a large stone—the conditions are entirely changed—changed not so much from the difficulty of dealing with the stone itself, as from the fact that the patient from years of pain and suffering has his constitution worn out and his vital organs, and particularly his kidneys, more or less affected. And I venture to say that there is no surgeon, no matter how eminent he may be, who has to deal with a stone of a very large size and weight who will not feel that he has a grave responsibility thrust upon him, no matter by what method he may determine on removing that stone from the bladder. The object of these remarks is to endeavour to assist in arriving at a conclusion as to the best method or methods of removing such calculi.

The question now arises: What are we to regard as a large stone—what are the size and weight below which a concretion is not to be permitted to enter into this category? I need scarcely say that it is impossible to draw a hard-and-fast line which will be applicable under all circumstances. But there are two considerations that will assist us in arriving at a solution of the question—(1) the age of the patient, and (2) the experience of the operator. A stone weighing half an ounce, say, which in an adult would be regarded as one of very moderate dimensions indeed, would in a child aged three or four years be regarded as a large one—as large, I should say, comparatively speaking as one weighing three ounces in an adult. Again an operator without special experience would regard a stone weighing half an ounce as a large one, and rightly and justly so consider it, whereas a practised hand would regard dealing with a stone of that size by the modern operation nowadays as simply child's play.

Space will not permit of my entering on that extremely fascinating subject—stone in children. These remarks, therefore, must be regarded as applying mainly to the adult. Under these circumstances I will define a "large stone" as one weighing 2 oz. and upwards, of which there are forty-nine examples in Table I. drawn from my own practice. I have drawn up this statement giving at a glance some of the important features of each of these forty-nine cases—viz., the date of operation, the variety of operation, the age of the patient, the weight of stone removed, the variety of calculus, the time spent in hospital after the operation, the time spent over each litholapaxy operation, and the result. The patients were all males except one; they were all adults except two boys aged respectively fourteen and fifteen years; and they all occurred in my practice in India.

It is scarcely necessary for me to say that, considering the lengthened period of years over which the calculous disorder must have existed in each instance to produce stones of these sizes, the patients were, almost one and all, in bad health, and some of them in extremely bad health. Cystitis, with thickened, rigid, contracted, and ulcerated bladder, was present in the vast majority of the cases; hypertrophy of the prostate co-existed in several, and stricture of the urethra in not a few; the kidneys were more or less affected in most of the cases, and gravely affected in many, and, owing to the irritation of neighbouring organs and the constant straining to pass urine, diarrhœa, dysentery, prolapse of the bowel, and hæmorrhoids were constant concomitants of these large calculi; and as these patients all resided in India hypertrophy of the spleen and other indications of malarial poisoning were present in a large proportion of the cases.

The operations undertaken by me were: suprapubic lithotomy, 4; lateral lithotomy, 13; vaginal lithotomy, 1; and litholapaxy, 31; total, 49. I will first dispose of the lithotomies, rapidly running over some of the salient features of the individual cases.

CASE 17.—The stone, which was broken in extraction, was hour-glass in shape. The larger portion, consisting of urates, lay in the bladder, and the smaller phosphatic portion in the prostatic urethra, which was, of course, much expanded over it, the two being united by a narrow neck, which corresponded with the inner orifice of the urethra. Calculi of this shape and lying in this position are not uncommon; they are always attended by constant dribbling of urine, and unless they can by some means be displaced backwards into the bladder, they offer an insuperable bar to the performance of Bigelow's operation.

CASE 66.—The patient was extremely weak and his kidneys were diseased. Death occurred on the second day from suppression of urine.

CASE 72.—In this case there were two uric calculi lying facetted together, one being covered with phosphates.

CASE 82.—From this patient twenty-five calculi of various sizes were extracted; some were almost pure urates, some covered with phosphates; all were smooth and rounded, from being free in the bladder and rolling about on each other. The patient's prostate was enlarged. A case of this kind

[1] A paper read before the Medical Society of London on Oct. 26th, 1896.

TABLE 1.—*Particulars of Forty-nine Calculi weighing 2 oz. and upwards.*

Serial No.	Date of operation.	Nature of operation.	Age of patient.	Weight of stone.	Variety of stone.	Days in hospital.	Time occupied by operation.	Result.
				ozs. drs. grs.			Minutes.	
17	May 19, 1878	Lateral lithotomy	65	2 0 0	Urates, phosph.	40	—	Successful
66	Oct. 14, 1881	,, ,,	35	2 0 0	Urates	—	—	Died
72	April 4, 1882	,, ,,	25	2 3 0	,,	24	—	Successful
82	,, 19, ,,	,, ,,	60	2 1 0	,,	41	—	,,
83	,, ,, ,,	,, ,,	40	3 4 0	,,	—	—	Died
90	June 2, ,,	,, ,,	22	2 0 0	Oxalates	19	—	Successful
99	Aug. 5, ,,	,, ,,	29	3 0 0	Urates	36	—	,,
126	Dec. 6, ,,	Litholapaxy	60	3 2 0	,,	11	66	,,
136	Jan. 11, 1883	Suprapubic lithotomy	17	3 1 0	Uric	32	—	,,
142	Feb. 20, ,,	Lateral ,,	20	2 0 30	Urates, phosph.	48	—	,,
146	March 17, ,,	,, ,,	61	4 0 30	Uric	—	—	Died
164	May 15, ,,	Litholapaxy	45	2 4 0	,,	11	70	Successful
16	,, 25, ,,	,,	45	2 6 0	,,	—	75	Died
180	July 3, ,,	Suprapubic lithotomy	27	12 4 0	Urates	—	—	,,
209	Nov. 15, ,,	Lateral ,,	40	2 6 0	,,	33	—	Successful
211	,, 21, ,,	Litholapaxy	80	2 0 55	,,	17	90	,,
231	March 7, 1884	Lateral lithotomy	75	4 3 0	Uric	—	—	Died
237	,, 17, ,,	,, ,,	36	2 7 0	,,	24	—	Successful
264	June 21, ,,	Litholapaxy	35	2 0 0	Phosphates	9	17	,,
276	Aug. 12, ,,	Lateral lithotomy	14	2 2 30	Oxalates	22	—	,,
277	,, 13, ,,	Litholapaxy	26	3 1 30	,,	—	52	Died
297	Oct. 26, ,,	,,	55	2 0 45	Urates, oxalates	7	26	Successful
316	Aug. 30, 1885	,,	60	3 2 30	Uric	24	65	,,
322	Sept. 9, ,,	,,	55	2 2 0	,,	8	47	,,
333	Aug. 23, 1886	,,	50	2 0 0	Phosphates	10	30	,,
403	May 27, 1887	,,	24	2 1 0	Urates	4	35	,,
419	July 6, 1887	,,	30	2 4 0	,,	10	45	,,
494	May 24, 1888	,,	44	2 1 50	,,	5	17	,,
499	,, 27, ,,	Suprapubic lithotomy	35	3 2 0	Oxalates	36	—	,,
553	March 25, 1889	Litholapaxy	55	2 6 0	Uric	5	35	,,
554	,, 29, ,,	Suprapubic lithotomy	30	3 4 0	Oxalates	—	—	Died
570	June 3, ,,	Litholapaxy	90	2 0 39	Uric	—	45	,,
604	Dec. 26 ,,	,,	15	3 2 17	Urates, phosphates	31	60 / 90	Successful
625	March 4, 1890	,,	55	2 6 10	Uric	16	45	,,
628	,, 21, ,,	,,	80	2 4 37	Urates	9	55	,,
633	April 15, ,,	,,	75	3 1 0	Oxalates	9	75	,,
668	July 30, ,,	,,	35	2 4 19	Uric	7	36	,,
675	Sept. 6, ,,	,,	80	2 4 18	,,	9	35	,,
687	Oct. 20, ,,	,,	70	2 0 39	,,	7	35	,,
712	Jan. 2, 1891	,,	20	3 0 0	Urates	4	35	,,
732	March 19, 1892	,,	20	2 0 4	,,	9	40	,,
763	Jan. 7, ,,	,,	75	2 0 1	,,	11	35	,,
773	Feb. 20, ,,	,,	45	6 0 1	,,	21	120	,,
779	March 19, ,,	,,	50	2 0 2	,,	7	20	,,
790	May 2, ,,	Vaginal lithotomy	70	2 0 0	Uric	11	—	,,
810	Sept. 24, ,,	Litholapaxy	58	3 0 10	,,	6	40	,,
838	Feb. 13, 1893	,,	65	2 0 50	,,	6	22	,,
845	,, 23, ,,	,,	60	2 2 40	Oxalates	12	22	,,
865	March 3, 1895	,,	57	2 0 53	Urates	7	20	,,

would be easily dealt with at the present day by litholapaxy, as it is much easier to crush several small calculi than one large one aggregating the weight of the whole.

CASE 83.—The crust of the stone in this case was broken in extraction. Death resulted on the third day from peritonitis.

CASE 99.—I commenced in this case by attempting to perform litholapaxy and succeeded in removing about an ounce of débris by the aspirator, but owing to my inexperience and want of confidence in myself, having at the time only completed two litholapaxies, I had to abandon the operation in favour of lithotomy. I must confess that it was rather rash on my part with such limited experience of the modern operation to have attempted litholapaxy on a stone of this size; and from my own experience I would strongly advise that no novice should try his 'prentice hand on a stone of this size till he has had considerable experience of the operation with smaller calculi. I cut the patient laterally and he made a good recovery.

CASE 136.—This was my first suprapubic operation for stone. Petersen's rectal bag was not known in those days, so the operation was performed in accordance with the old method. Still the patient made a good recovery.

CASE 142.—In this patient stricture of the urethra co-existed. The recovery was rather slow (forty-eight days).

CASE 146.—The patient was extremely feeble and suffering from enlarged prostate. He died on the fourth day from exhaustion.

CASE 180.—This calculus, which was composed of urates and weighed twelve and a half ounces, is the largest that has occurred in my practice. The suprapubic operation was performed. The wounds in the abdominal wall and in the bladder were large, and there was considerable hæmorrhage from the latter. The patient never rallied, and died six hours afterwards from shock. His kidneys were extremely diseased.

CASE 209.—In this case I commenced by litholapaxy, crushing the stone into large fragments; but the stone being large and the bladder narrow and contracted the operation proceeded slowly, so I had to complete the operation by lithotomy, and the patient made a good recovery. Possibly the result in this case, as in Case 99, was partly attributable to the partial crushing of the stone.

CASE 231.—In this case I attempted litholapaxy, but my largest lithotrite would make no impression on the stone, which was extremely hard, so lateral lithotomy was performed. The prostate was much enlarged in this aged patient, and the middle lobe, the size of a walnut, was brought away by the lithotomy forceps. Death resulted on the twenty-first day from diarrhœa, although the wound had practically healed.

CASE 276.—The calculus from this case, which was composed of oxalate of lime, was of such reasonable dimensions that had it occurred in an adult it would have been easily disposed of by litholapaxy. The stone was broken across in extraction, thus exemplifying what I have frequently found in practice—viz., that a mulberry calculus, though always composed of hard nodules, is sometimes friable and yields to the lithotrite more readily than one would imagine.

CASES 499 AND 554.—In both these cases suprapubic lithotomy was performed after Petersen's method. In the first case no difficulty was met with and the patient made an excellent recovery. In the second case the bladder was contracted and thickened, resenting the presence of more than a couple of ounces of water under the most profound anæsthesia, so that the suprapubic space uncovered by peritoneum was extremely small and the peritoneum was opened. The patient died next day from suppression of urine and there were no signs of peritonitis. The kidneys were found to be extremely diseased.

CASE 790.—This old female was in a very miserable condition, with constant pain and dribbling of urine. The urethra was so wide that I could pass my thumb through it and feel the stone. Litholapaxy was attempted, but my largest lithotrite would make no impression on the stone. I then introduced a lithotomy forceps and caught the stone and withdrew it partly through the urethral canal. An incision an inch and a half long was made through the vaginal roof and urethra and the stone was extracted. Several sutures were introduced and a catheter was tied in. The wound healed by direct union and no dribbling of urine remained. I am aware that the procedure of cutting through the urethral canal is condemned in all the old text-books and in some of the modern; but there are many recommendations made in the old text-books and in some of the modern ones that do not bear the light of practical experience, and I am inclined to think that this is one of them.

Passing on now to the litholapaxy cases, thirty-one calculi—or rather débris of these calculi—were removed by Bigelow's method weighing two ounces and upwards. One stone was composed of white urates and weighed six and one-eighth ounces, being the largest that I have removed by this method. A regrettable feature of the modern operation is that in the removal of the stone it has to be disintegrated into fine débris, thus destroying its physical characteristics; and we are thus deprived of many interesting and instructive lessons derived from a contemplation of the physical aspects of the stone as removed entire by lithotomy. A notable feature of these thirty-one calculi—as, indeed, of the whole collection—is their almost universal hardness, there being only two instances of soft phosphatic stones amongst them, the remaining twenty-nine being composed of urates and oxalates, with a little phosphates thrown in.

A word now about the instruments necessary for dealing with these large calculi. The lithotrites used by me generally vary from No. 4½ up to No. 18 of the English scale; but it is only the larger sizes, from No. 14 up to No. 18, that are of any practical use in dealing with these large stones. One lithotrite, I may note incidentally, was constructed for me many years ago by Weiss, and it has crushed some 320 calculi, and though it has never undergone any repairs it is a better instrument now than it was the day it left Weiss's shop. It is the model on which all my large lithotrites have since been built. It combines the handle and locking action of Bigelow's lithotrite with the fully fenestrated blades of Weiss and Thompson. This ball-handle affords a much firmer grip to the hand than the old-fashioned wheel—a grip which is essential in dealing with large and hard calculi. The locking action is of the simplest character, the instrument being locked or unlocked by a quarter turn of the wrist, to the right or left respectively, and the left hand is free to grasp the female blade and hold it steady in the bladder during the various manipulations, so that the tilting of the instrument that is liable to occur when the button-locking action is employed is thus obviated. I use none but fully fenestrated blades now, owing to the fact that the impaction of débris, which was a common occurrence with the non-fenestrated and semi-fenestrated blades, cannot occur if the instrument is properly used. The female blades are smooth and bevelled on the inside, so that it is almost impossible to catch the mucous membrane of the bladder. In another lithotrite which has recently been devised by Mr. Reginald Harrison the ball and wheel handles are replaced by a crossbar, or corkscrew handle, which gives a firm purchase to the hand. The locking action is that used by M. Guyon and the French school generally. I have no practical experience of this instrument, but have witnessed Mr. Harrison use it on more than one occasion on calculi of considerable size, and, I may add, use it with great effect.

The cannulæ required for large calculi in the adult vary from Nos. 14 to 18. A smaller than the former instrument is of no use and I never employ a larger cannula than the latter. The aspirator with which I have done most of my work in India is that with which Bigelow worked for some years before his death. His early aspirators, though efficient, were somewhat cumbersome, and they were gradually altered and cut down to the present shape and dimensions. I have recently simplified this aspirator still further by dispensing with the funnel at the top, which is not essential. This new aspirator I have worked with for several months. It is very light and handy and is thoroughly efficient, but almost every surgeon who works at this particular branch of surgery has invented an aspirator of his own, which, no doubt, he considers the best.

A normally capacious urethra is, of course, necessary to enable us to pass these large instruments. When the stone is small or moderate in size stricture of the urethra is no bar to the performance of litholapaxy, the stricture being cut internally, or rapidly dilated, immediately before proceeding with the main operation. But when the stone is large the repeated introduction of the instruments is necessary, and I do not think that the repeated passing of these instruments over a recently dilated or divided stricture is suited to the urethral condition. When, therefore, stricture co-exists with a large stone lithotomy should be performed. Enlargement of the prostate is no bar to the performance of litholapaxy for large stone unless the hypertrophy be pronounced. Indeed, several of these calculi were removed from patients with enlarged prostate. When, however, the prostate is much enlarged and the urethra tortuous, lithotomy, either suprapubic or perineal, according to the circumstances of the case, should be had recourse to.

In crushing large calculi there are several special points to be observed, to which I will now direct attention. It will sometimes be found that when a large and hard stone is grasped by the lithotrite and the instrument is screwed home with full strength the stone will not at first yield. If we wait for a few seconds it is not unlikely that it will do so and with a loud report. If not, unscrew the lithotrite and catch the stone by another axis and screw home again. By repeating this process over and over again the stone will, as a rule, yield in the end. Whether the repeated compression of the stone in various directions has the effect of undermining its constitution, or whether a stone has less powers of resistance in one direction than in others, I am not prepared to say; all I can vouch for is the success of the manœuvre indicated.

But there is a limit to the strength of the largest lithotrite that can be introduced through the urethra, and a prudent and careful surgical instrument maker will limit the screw-opening of the instrument accordingly, so we may find that our largest lithotrite will not lock on the stone in the first instance, as occurred in many of these cases. Now a glance at calculi removed entire by lithotomy will show that, as a rule, they are irregular in shape, so that though the lithotrite may not lock on the stone when grasped by th long axis it may do so when the stone is grasped by a shorter

axis or by one end. In this way a portion of the stone is broken off and reduced to fine débris, the main body of the stone being attacked again and another portion broken off, and so on till the whole of the stone is demolished.

I have been much struck by the fact that in the majority of these thirty-one cases the stone was caught in the first instance by the long axis, which had to be changed for a shorter axis before the lithotrite would lock. This is due to the fact which I brought to the notice of Mr. Harrison some years ago and which he was good enough to acknowledge in the last edition of his work on "The Surgical Disorders of the Urinary Organs"—viz., that as a rule a stone lies in the bladder with its long axis in the antero-posterior direction.

If, however, the stone be more or less round and so large that the lithotrite fails to lock on it in any direction, what are we to do then? We dig the jaws of the lithotrite into one side of the stone and, holding them in position, screw home the instrument, thus scraping off a portion of the crust. This process is repeated again and again; and unless the stone be extremely hard it is wonderful the rapidity with which it will be reduced to such a size as to permit of the lithotrite locking on it.

These are the processes of "chipping" and "scraping" of a stone by which a lithotrite may be made to crush a larger stone than that for which it was constructed.

One of the most difficult complications we meet with in dealing with large calculi is when the bladder is thickened and contracted—hugging the stone, if I may say so—thus preventing the free movements of the lithotrite in the bladder, so that the jaws of the instrument are with difficulty got on to the stone. This difficulty will, as a rule, be obviated by injecting water into the bladder, thus separating the mucous membrane from the stone. But occasionally it will be found that, even under the most profound anæsthesia, the bladder resents the presence of the smallest quantity of water. In such cases it will be necessary to have recourse to lithotomy.

Passing on now from these general remarks, applicable to most cases of large stone, I will deal briefly with some features of interest in a few individual cases. And let me first call attention to the three cases of death that occurred amongst the thirty-one litholapaxy operations. I will not give the notes of these cases in detail, but will confine myself to saying that the patients were aged respectively forty-five, twenty-six, and ninety years, that all three were in extremely bad health, with their kidneys extensively diseased, and that the causes of death were respectively pyæmia, suppression of urine, and exhaustion and shock. The last of these cases was one that can never vanish from my memory. I have never seen a patient suffer such fearful tortures from stone as that poor old man aged ninety years did. He was carried to hospital in a bed writhing in agony, endeavouring to pass urine every few minutes. He was also suffering from fever at the time. I kept him under preparatory treatment for a few days, but on the fourth day he implored me to operate, stating that he could stand the pain no longer. Yielding to his entreaties I removed the stone by litholapaxy, though I felt that the case was a forlorn hope. There was no particular difficulty met with in the operation, but the patient died next day from the shock and exhaustion.

The details of the largest calculus (six and a half ounces) that I have removed by Bigelow's method are interesting, so I will give them briefly. The patient was a man aged forty-five years, with symptoms of stone lasting twelve years. He was in wretched health, the urine being muco-purulent and fœtid. The operation was performed on Feb. 20th, 1892, Surgeon-Major Tuohy being present. When placing the patient on the operating-table I imagined that suprapubic lithotomy would be necessary, but determined to try litholapaxy. Introducing my largest lithotrite, after some manipulation I caught a portion of the stone (which I found was irregular in shape), broke it off, and reduced it to fine fragments. This process I repeated again and again, chipping off portions or scraping the sides of the stone till I had removed about three ounces of débris. I then found that the main body of the stone was lying in a wide-mouthed pouch at the fundus of the bladder. After some difficulty I grasped the stone in this position, but could not move it from the sac into the main cavity of the bladder. After much effort I crushed the stone *in situ*, and then pulverised the fragments one by one, some in the pouch and some in the general cavity of the bladder. The central portion of the stone, one inch and a half in diameter, was so extremely hard that several most powerful efforts with the lithotrite were necessary before it was crushed. The operation lasted two hours, during which three and a quarter ounces of chloroform were used. A pedunculated mucoid tumour the size of a small cherry was brought away by the lithotrite during the operation. The patient was much exhausted after the operation, but soon picked up strength. Surgeon-Major Seymour saw him with me on Feb. 24th, when he was sitting up in bed; and on March 9th he was free from urinary symptoms but weak. On June 18th Surgeon-Major Seymour, who took charge of my work during my holiday, wrote to me: "That man from whom you removed that enormous stone came to show himself the other day. The last time I saw him he came in a dooly, looking like an old man of seventy. Now he looks a fairly robust man of forty. I would not have believed such a change possible. He is able to walk as well as ever." One year after the operation, Feb. 21th, 1893, this man appeared before me in hospital in perfect health. He informed me that his wife had presented him with a daughter one month previously, though he had lost all sexual power for several years before the operation.

From Table 1 it will be seen that, broadly speaking, in proportion as the experience of litholapaxy increased the time spent over the operation diminished. There were six calculi weighing from two to three and one-third ounces in weight removed in periods varying from seventeen to twenty-two minutes, and in Case 712 I removed a urate stone weighing three ounces in thirty-five minutes. These seven operations were all successful. I attribute the utmost importance to the rapidity with which a large calculus is removed by litholapaxy, and venture to say that, other things being equal, our success will vary in such cases in inverse proportion with the length of time spent over the operation. When the stone is moderate in size there is no urgency about completing the operation, because the patient's health has not, as a rule, completely broken down; but in cases of large calculi of these sizes the constitution is, as a rule, worn out and the kidneys are affected. Under such circumstances prolonged narcosis leads to congestion of the kidneys, exhaustion of the vital powers, and shock.

Not less interesting than the rapidity with which a large stone can be removed by Bigelow's operation is the rapid cure that sometimes ensues. Case 714, already alluded to, was the most remarkable instance of rapid cure in my practice. The patient alleged that the symptoms of stone had existed only two months. Still, I removed this urate stone, weighing three ounces, in thirty-five minutes, with scarcely a trace of blood in the washings. Next day the patient informed me that he felt so well that he could walk twenty miles! He was discharged on the fourth day. In Case 553 I removed a urate stone weighing two and three-quarter ounces from a patient aged fifty-five years. Next day he was walking about quite well and was discharged on the sixth day. And in Case 633 I removed three ounces and one drachm of oxalate of lime stone from a patient aged seventy-five years in seventy-five minutes. Next day he was sitting up in bed, quite happy, save that he grumbled about his food being cut down! He was discharged on the ninth day.

These forty-nine operations may be divided into three groups corresponding with three more or less well-defined periods. The first group of six cases belongs to my pre-litholapaxy days and were necessarily lithotomies, for no one ever dreamt of removing large calculi by the old operation of lithotrity with its numerous sittings. The second group of fifteen cases down to August, 1884, belong to what I may call the period of transition, during which I was passing from lithotomy to litholapaxy and learning how to operate by the latter method, and it will be observed that the cutting and crushing operations alternated pretty regularly. There were six completed litholapaxies, seven completed lithotomies, and two cases in which I commenced by litholapaxy, but, as already explained, had to finish by lithotomy. Finally, there is the third group of twenty-eight cases from August, 1884, down to the present time. Amongst these there were only three cutting operations—viz., two suprapubic and one vaginal lithotomies, the remaining 25 cases having been disposed of by litholapaxy.

There is another operation for large calculi which has during the last few years been brought to the front—viz., perineal litholapaxy or lithotrity, which consists in making an opening from the perineum into the posterior urethra,

and through this introducing large lithotrites or crushing forceps, the prostatic urethra admitting, of course, much larger instruments than the rest of the canal. I have no experience of this method myself, but as it has been advocated by Mr. Harrison, Keith of India, and Milton of Cairo, a paper of this kind would not be complete without a reference thereto.

The following statement shows at a glance the results of the different varieties of operation for large stone performed by me:—

TABLE II.—*Results of the Different Varieties of Operations.*

Operation.	Number of Operations.	Average age of patient.	Average weight of stone.	Average no. of days in hospital.	Mortality.
			oz. dr. grs.		
Suprapubic lithotomy	4	27½	5 5 0	34	2, or 50 %
Perineal ,, ...	14	42½	2 5 23	30	4, or 28½ %
Litholapaxy	31	52	2 5 2	10½	3, or 9½ %

The average age of the litholapaxy cases was fifty-two years, ten years greater than that of the perineal lithotomy cases and double that of the suprapubic cases. The average weight of stone in the suprapubic cases was, however, twice that of the two other varieties of operation. But the period under treatment after operation in the litholapaxy cases was only ten days, as compared with thirty and thirty-four days respectively in the lithotomy cases. Finally, the mortality, which in the suprapubic operation was 50 per cent. and in the perineal 28 per cent., was in the litholapaxy cases reduced to less than 10 per cent. Now I am aware, of course, that four cases of suprapubic operation do not constitute a sufficiently large number from which to draw any safe or trustworthy conclusions. But a glance at the column of results in Table I. will show that in proportion as lithotomy was abandoned in favour of litholapaxy, and as I gained experience of this latter operation, my results improved; and the fact that my last sixteen litholapaxies for calculi of from two up to six and one-eighth ounces were all successful speaks well for Bigelow's operation.

With results such as these before me I have no hesitation in pronouncing Bigelow's method the safest and best for calculi of all sizes in patients of all kinds and conditions, *provided only that this operation is feasible.* When not practicable I consider that calculi up to about three ounces in the adult, and a corresponding weight in the child, are best removed by perineal lithotomy; beyond that suprapubically. Six and one-eighth ounces is, as I have said, the largest stone that I have removed by Bigelow's method, but larger calculi have been successfully removed by Keith, Keegan, and Cunningham in India and by Milton in Cairo. So fully convinced am I of the vast superiority of Bigelow's operation over all others in saving human life and suffering that I would lay it down as an absolute rule that in no case, whether in the male or in the female, the adult or the child, should a stone, whether small or large, be subjected to a cutting operation till after trial litholapaxy is found not to be feasible.

Harley-street, W.

THE BAZAAR FOR THE MANCHESTER CONSUMPTION HOSPITAL.—The bazaar for the above hospital has been very successful. The committee were anxious to obtain £10,000, which some thought almost too large a sum to hope for, but the result has surpassed expectations, for the amount raised will probably reach about £11,000, in addition to which endowments for two or three beds have been promised.

THE RAHERE LODGE, NO. 2546.—An ordinary meeting of this lodge was held at Frascati's Restaurant on Tuesday, Dec. 8th, Brother Alfred Cooper, F.R.C.S. Eng., the W.M., in the chair. Dr. Horton-Smith, Dr. Gow, and Dr. Evans, with Mr. Sloane and Mr. Perram, were admitted into Freemasonry. Brother Hampton was advanced to the second degree and Brother Lance was raised to the third degree. Sixty members and visitors were present, of whom fifty afterwards dined together.

THE PRACTICAL APPLICATION OF THE ROENTGEN RAYS IN DISEASES OF THE HEART AND GREAT VESSELS.

BY H. CAMPBELL THOMSON, M.D., M.R.C.P. LOND.,
MEDICAL REGISTRAR TO THE MIDDLESEX HOSPITAL.

IN a recent number of THE LANCET[1] I showed that the size and shape of the heart could be estimated by means of the Roentgen rays and a fluorescent screen and also that with a little trouble a tracing of that organ could be obtained. In order, however, that this method may be turned to practical account in the diagnosis of disease it is first of all necessary to be quite familiar with the appearances which are seen in the normal condition. When the focus tube is placed behind a person so that the rays pass through the thorax a striking effect is produced. The bones are very clearly depicted, while the heart is seen as a definite shadow in contradistinction to the

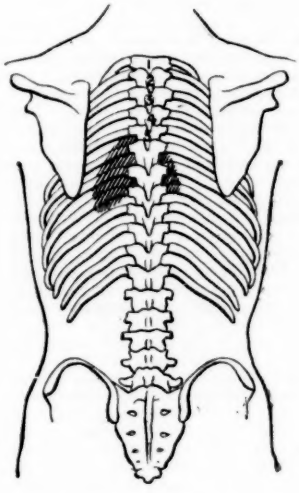


Fig. 1. Posterior View of the Normal heart.

light area around. This light area is occupied by the lungs, which are not dense enough to stop the rays, but allow them to pass through and give rise to a fluorescence on the screen. The shadow of the heart is not uniform in intensity, being lighter at the margins than towards the centre, but the outline can be clearly seen and its pulsating movements detected. The lower limit of the thorax is bounded by a dark shadow which corresponds to the diaphragm with the liver beneath it and the ascent and descent of the diaphragm with each respiration can be clearly seen. On taking a deep inspiration so that the diaphragm descends to its full extent the lower margin of the heart can be differentiated from the liver, the descent of the latter causing an interval between the two organs, which at once shows up as a bright line. This is in itself an important point for clinical purposes, as by ordinary methods it is very difficult to map out this line owing to the dulness of the one merging directly into that of the other. From a front view, then, the whole outline of the heart can be made out, and after a little experience anything abnormal in shape or size can readily be detected. The back view is, if anything, more interesting than the front from a clinical standpoint, since it is more difficult to investigate by the usual means. The ribs and vertebræ show up as they did in front, but of

[1] THE LANCET, Oct. 10th, 1896.

the heart itself much less is seen. One reason for this is that part of the heart is situated directly in front of the spinal column, and so is necessarily obscured from view, and another reason is on account of the oblique position which the heart takes up in the thorax, the base being directed slightly upwards and backwards, while the apex points downwards and forwards. On the left of the spine a definite shadow is seen with a well-marked external border; this corresponds to the left ventricle. To the right of the middle line a smaller shadow of less intensity appears, which chiefly corresponds to the right auricle. The appearance of the shadows will be seen in Fig. I.[2] and it is necessary to be quite familiar with this appearance on the screen before anything abnormal can be detected. When taking a tracing of this back view it is useful also to mark in the lowest points of the angles of the scapulæ which are normally on a level with the lower border of the seventh rib. The following is a case in which examination by the rays materially assisted in making a diagnosis.

A man aged forty years was first seen in June, 1896, by Dr. A. Wheeler. He then complained of pain in the left side and also occasionally in the back, which he had had since March. Shortly afterwards he was seen by Dr. Sidney Coupland, who agreed with Dr. Wheeler in suspecting the possibility of an aneurysm. At this time the physical signs consisted of some impairment of resonance in the interscapular region and a blowing systolic murmur was to be heard all over this region, but with its point of maximum intensity to the right of the vertebral column. The patient was informed of the probability of the presence of a deep-seated aneurysm, but wishing for further corroboration he consulted another physician, who did not think the evidence sufficient to warrant such a diagnosis being made. The case was in this doubtful position

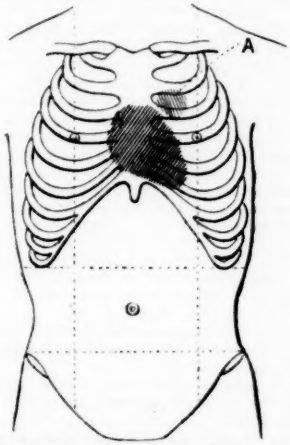


Fig. II. Front View of heart in the case of Aneurism, showing an indefinite shadow above the left border.

when Dr. Coupland kindly sent him to me and we together examined him by the x rays. From the front it was noticed that the heart was a little hypertrophied, and just above the point of junction of the left border with the sternum a faint indefinite shadow was seen (Fig. II., A), from which, however, nothing decided could be made out. On looking at the back we were more successful. The shadow of the heart appeared as usual, but just above it was a very definite shadow seen on both sides of the spinal column and about on a level with the fourth dorsal vertebræ (Fig. III., A and B). On the right side the border was convex and could be distinctly seen to pulsate, while its intensity was about equal to that of the heart, but, on the whole, a little lighter. On the left side the shadow was only faint and its margins could not so definitely be made out. This, then, was an important piece of evidence, which, added to the physical signs already obtained, removes the case from a doubtful one to one the nature of which is practically certain, for it can scarcely be doubted that it is a case of aneurysm of the aorta, the tumour probably springing from the descending part of the arch.

I may add that since this examination was made a diastolic

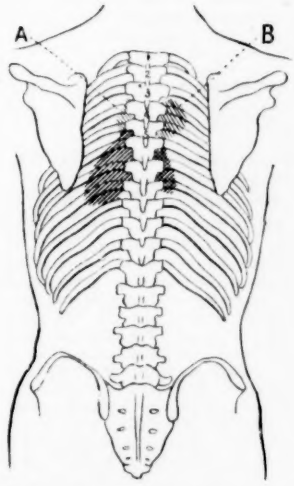


Fig. III. Back View of heart, shewing Aneurism situated above.

murmur has developed in addition to the systolic one above-mentioned, thereby adding still more confirmatory evidence in favour of the diagnosis.

Since the above was written I have had an opportunity of examining two other cases of aneurysm, with equally satisfactory results.

Queen Anne-street, W.

[2] In the figures the bones which of course in reality appeared dark, have not been shaded to avoid confusion.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

TWO CASES OF DERMATITIS VENENATA PRODUCED BY WEARING FUR.

BY ROBERT J. CARTER, M.D. LOND.,
ASSISTANT PHYSICIAN TO THE WESTERN SKIN HOSPITAL.

IN the early winter of last year I was consulted by a patient on account of a rash attended by much irritation which had appeared on her neck and was spreading. On examination it was found that the skin of the neck, except the nape, extending downwards as far as the clavicles and upwards just over the inferior maxilla, was the seat of an acute dermatitis. The whole area was bright red, infiltrated and papular, with here and there excoriations produced by scratching; the margins were ill-defined, the inflammation gradually losing itself in the healthy surrounding skin. As it appeared obviously due to some external irritant a few questions revealed the cause. The eruption, which had been present one week and had commenced simultaneously on both sides over the prominences of the sterno-mastoid muscles, only showed itself after wearing for the first time a new sable collarette, which had been worn for some hours every day during that week. Some calamine lotion and a silk handkerchief in place of the fur speedily produced a cure. A few weeks ago another patient presented herself with a similar dermatitis, and in this case also it was elicited that the rash was noticed immediately after a new sable collarette had been worn for the first time. This latter case was not so severe and had only been present three days, but similar treatment

proved effectual. For the benefit of the uninitiated it may be mentioned that these collars are composed of the fur of an entire animal, which is stuffed after dressing the skin. The modern methods of treating furs and skins are various, but I believe arsenic is used in many cases, and the appearance of the dermatitis was suggestive of arsenic or of some chemical irritant which might have been present in the skin as a preservative.

Acacia-road, N.W.

A CASE OF RUPTURE OF THE CARDIAC MUSCLE.

By J. W. WILLIAMS, L.R.C.P. LOND.

THE following case because of its rarity is, I believe, worthy of being placed upon record.

In the early morning of Nov. 20th I was hurriedly called to see a man aged seventy-one years. I went immediately, but found him lying on his back dead in bed. A few minutes before I was summoned he had awakened his wife by his noisy breathing and directly afterwards expired. The previous history is not very precise. His wife stated that of late years he had suffered from slight dyspeptic symptoms and a "weak heart," but had never been medically attended for these; otherwise he had enjoyed fairly good health. At the necropsy I found the pericardial cavity distended with fluid blood and clots, and on examining the heart a triradiate rupture (about 1 in. in length externally and ½ in. internally) was seen on the anterior surface of the left ventricle near to the septum. The heart was considerably enlarged and weighed 18 oz. Its cavities were dilated and both auriculo-ventricular valves thickened. The heart muscle itself was extremely friable, breaking down on the slightest pressure of the finger, and in a state of fatty degeneration. The thoracic aorta and coronary arteries were atheromatous. With the exception of some slight emphysema of the lungs and a small cyst on the surface of the left kidney all the other organs were natural.

Mansfield-road, N.W.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

WESTMINSTER HOSPITAL.

A CASE OF EXTRA-PERITONEAL RUPTURE OF THE BLADDER; SUPRAPUBIC CYSTOTOMY; RECOVERY.

(Under the care of Mr. THOMAS BOND and Mr. A. H. TUBBY.)

EXTRA-PERITONEAL ruptures of the bladder are by no means common, though opinions differ considerably as to their frequency. There can be little doubt, however, that in the majority of cases of rupture of the bladder the peritoneum is involved. Some of the cases of rupture in which the peritoneum is not involved present no other lesion, and these may be due to bullet wounds and stabs, but on the whole the most serious cases are those which are associated with, and due to, fracture of the bones of the pelvis, and of these a large number never come to operation, as the other injuries are sufficiently severe to cause death, and in many cases the injury to the bladder is only recognised after death. This fact may account in part for the differences in opinion as to the frequency of the lesion. W. Rivington[1] mentions 60 cases of extra-peritoneal rupture out of a total of 225 fatal cases of ruptured bladder, while out of 10 cases reported by Prescott Hewett 8 were extra-peritoneal.[2] The mortality in any form of ruptured bladder has always been very high, but if only cases suitable for operation be considered recent operative procedures give results showing a greatly diminished death-rate. Sieur[3] collected 18 cases of extra-peritoneal rupture in which an operation was performed, and of these 10 recovered; this gives a mortality of 44 per cent. H. Schlange[4] gives 7 recoveries out of 10 cases. In rupture of the bladder, where it is uncovered by peritoneum, no method of operation can give results to be compared with those of suprapubic cystotomy. By this method the extent of the injury can be clearly seen and the wound can be plugged or sutured as may seem best. In the case we record below a noteworthy point is the method by which the injury was inflicted. Forcible catheterisation has at times had its advocates, but its results have been always disastrous in a very large proportion of cases. The most frequent cause of death has been sepsis, but hæmorrhage, though not actually profuse, is nearly always present. In this case the prostate seems to have escaped completely, the catheter leaving the urethra almost at its apex. For the notes of the case we are indebted to Mr. H. H. Cheesman.

A man aged sixty-three years was admitted on May 22nd, 1896, suffering from retention of urine and free hæmorrhage from the urethra. Twenty-five years ago he had gonorrhœa and had been troubled from time to time by a stricture. He had been in the habit of passing a catheter for about eight years. During the day there had not been much difficulty in passing urine, but at night he was always compelled to use a catheter. The difficulty in micturition became suddenly worse on May 21st, and for the first time the passage of the instrument failed to draw off urine. During the passage of a silver catheter by a medical man the patient felt acute pain and at the same time felt the catheter leave the middle line and noticed that it passed an unusual distance. Blood at once flowed copiously from the urethra. The patient was then told he must go at once to the hospital. In the cab blood ran freely from the urethra, and on his arrival at the hospital clots of considerable size were found in his trousers and he was in a collapsed state from loss of blood and acute pain. On admission the bladder was found to be enormously distended vertically and laterally. It reached about an inch and a half above the umbilicus and was unusually hard, giving no thrill on percussion. It was evidently full of blood-clot. The prostate was found much hypertrophied, especially on the right side. Suprapubic puncture being useless in such a condition a cystotomy above the pubes was performed. Considerably over a pound of solid clot was turned out, and then, on inserting the fingers into the bladder before it had contracted, an irregular rent sufficient to admit the tips of two fingers was found at the base of the bladder and on the right side of the prostate. Meanwhile, bright blood was oozing from the laceration. The wound in that place was, therefore, stuffed with gauze from the suprapubic opening and the bladder sutured to the abdominal wall, thus leaving an aperture above the pubes for free drainage of urine. The patient's progress toward recovery was rapid, and on the seventh day after operation a soft catheter was passed per urethram and the suprapubic wound allowed to heal. He has since presented himself at the hospital and now has very little difficulty in passing his urine.

Remarks.—In the attempt to pass a silver catheter it is possible that the instrument entered an old false passage and that then the catheter was pushed on regardless of the pain it caused and of the change in its direction until it ruptured the base of the bladder on the right side. The prostatic urethra had not been traversed. From the large amount of hæmorrhage a vessel of considerable size, probably the inferior vesical, had been torn across. That no extravasation of urine occurred was due to the fact that suprapubic cystotomy was performed within an hour or two of the accident. The patient's uninterrupted recovery and the rapid resumption of the normal functions of the bladder are worthy of note.

BRISTOL GENERAL HOSPITAL.

A CASE OF HERNIA IN WHICH IRREDUCIBILITY WAS DUE TO THE PRESENCE OF A MESENTERIC CYST.

(Under the care of Mr. CHARLES A. MORTON).

MESENTERIC cysts are sufficiently rare to warrant a record being made of every case met with, but the occurrence of a

[1] THE LANCET, June 10th, 1882, p. 944.
[2] Transactions of the Pathological Society, vol. ii., p. 227.
[3] Revue de Chirurgie, March, 1894.
[4] Archiv für Klinische Chirurgie, vol. xliii., p. 23, 1892.

mesenteric cyst in a hernial sac rendering the hernia irreducible has, so far as we are aware, not been recorded hitherto. Probably the best classification of these tumours is that given by Jules Braquehaye.[1] He makes five classes. The first includes sanguineous cysts, or hæmatomata, which have been formed by the rupture of a bloodvessel with the effusion of blood between two layers of the mesentery; in some cases after a time the blood-colouring matter may be more or less completely absorbed, leaving a cyst which may appear to be serous. The second class contains lymphatic cysts due to the dilatation of lymphatic vessels or glands. Some of these contain chyle in the place of lymph; most serous cysts belong to this class. In the third class are those due to the presence of a hydatid. In the fourth class are cases congenital in origin; most of these seem to be dermoids, though embryologically it is difficult to see how dermoids can arise in this situation; others are probably derived from persistent portions of the Wolffian body. The last group contains cysts derived from neighbouring organs. Probably about one-third of all tumours met with in the mesentery are cysts. The cysts may be multiple, as in the case of a child eight years old, reported by S. Smith,[2] who excised the cysts, turned the peritoneum of the pedicles inwards, and sutured by Lembert's method. The patient died, however, a few weeks later from general tuberculosis. Occasionally the cysts are very large, as in one reported by J. A. Goggans,[3] where the cyst contained about a gallon of dark-coloured fluid. Two methods of treatment have been employed for the cure of these growths—namely, drainage and extirpation. In the first form the cyst is stitched to the abdominal wall and drained. The other method—by extirpation—seems to be frequently accompanied by profuse hæmorrhage. In the case reported below Mr. Morton does not seem to have had any difficulty of this nature. The mortality after draining has been given by Braquehaye[4] as 8·5 per cent. (two deaths in twenty-four cases), while after extirpation eight patients died out of twenty, a death-rate of 40 per cent.

A man aged twenty-one years was admitted into the Bristol General Hospital on Jan. 20th, 1896, with a large scrotal swelling of which he gave the following history. Six months previously, a few hours after falling from a plank, a swelling the size of a hen's egg appeared in the right inguino-scrotal region. At first it disappeared when he lay down at night, but it had not done so for some months, nor had he been able to force it back. It had considerably increased in size. He had never worn a truss. There was a swelling the size of a cocoanut occupying the right side of the scrotum and extending up to the region of the external ring. The testicle was quite free. Part of the swelling was easily reduced with the characteristic gurgle, but left a round, fluctuating, smooth, firm mass the size of a large orange. On pressing on the ring so as to prevent the descent of bowel it was found that this mass was free from impulse on coughing. It had apparently no connexion with the testicle. It was impossible for him to wear a truss, and Mr. Morton determined to perform a radical operation and remove the irreducible swelling. He thought it might turn out to be an omental cyst. The bowel (when the rupture was down) seemed to surround it too much for a hydrocele of a hernial sac, or rather a collection of fluid shut off by adhesions at the bottom of a hernial sac. He intended to examine it for translucency, but it was inconvenient at the time and was unfortunately omitted. On Jan. 30th Mr. Morton operated for radical cure. After apparent reduction of all the bowel the remaining swelling was quite dull. He opened the sac and found within the upper part some bowel with the wall so thick and so completely empty of gas that its recognition as bowel was at first difficult. It was everywhere adherent by soft adhesions to the sac wall. On breaking down these adhesions with the finger, and tracing the coil down into the lower part of the sac (where it was equally adherent) he came on a round elastic swelling lying beneath it. After further separation of soft adhesions he was able to distinguish the whole coil with its mesentery, and lying in the mesentery was the swelling. The bowel was so stretched over it as to be considerably flattened. The mesentery where occupied by the cyst was adherent to the sac wall. After withdrawing fluid from the swelling with an exploring needle he made an incision through the layer of the mesentery over the cyst parallel with the bowel and then with the finger tore off the attachments of the mesentery to the cyst, pulled the cyst out of the mesentery, dividing a tougher band of adhesions here and there with scissors. The cyst did not lie deeply enough in the mesentery to endanger division of the blood-vessels supplying the portion of the coil of bowel stretched over it. Mr. Morton completed the operation by doing a radical cure according to MacEwen's method. The veins of the lower part of the cord seemed varicose, possibly from the pressure of the cyst. The cyst had a dense white wall of fibrous tissue, and on laying it open there were seen some soft partitions of what looked like fibrin stretched across it. On the interior of the wall at one spot there was a vesicle such as one might see on the skin after the application of an irritant. The fluid was slightly bloodstained, a little viscid, and on standing in the enamelled vessel for an hour spontaneously coagulated into a soft jelly. The wall resembled more that of a miniature ovarian cyst than any other kind. Microscopic examination of it only showed dense fibrous tissue.

Remarks by Mr. MORTON.—Mesenteric cysts in the abdomen are rare, but in a hernial sac are very rare indeed, so that the above case is of much interest. No similar case seems to have been recorded. These cysts are sometimes formed by adhesions between folds of mesentery, with a collection of fluid (occasionally chylous) in the space thus formed. This cyst was not of that nature. It resembled more a case, referred to by Dr. Fisher in his paper on Peritoneal Sanguineous Cysts in Guy's Hospital Reports for 1892, which was reported by Fräntzel in 1892[5] of a woman aged twenty years, who had a very mobile, round, abdominal tumour the size of a child's head. At the operation a cyst containing sero-sanguineous fluid was found between the layers of the mesentery. There was no swelling to be felt in my patient's abdomen suggestive of the presence of other cysts.

[1] Archives Générales de Médecine, September, 1892.
[2] Australian Medical Journal, May 15th, 1893.
[3] Atlanta Medical and Surgical Journal, February, 1892.
[4] Loc. cit.
[5] Deutsche Zeitschrift für Chirurgie.

Medical Societies.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Adjourned Discussion on a Case of Amnesia of Eighteen Years' Duration, with Necropsy.—Violent Jactitations of Twenty-two Years' Duration, affecting chiefly the Left Arm and Leg, treated by Trephining and Excision of the Arm Centre in the Right Motor Cortex.

A MEETING of this society was held on Dec. 8th, Dr. W. H. DICKINSON, President, being in the chair.

Mr. SPENCER WATSON, who had moved the adjournment of the debate, said that he was glad to avail himself of this opportunity to discuss Dr. Bastian's case of amnesia. He wished to draw particular attention to the fact that the expression of numerals was much more available to the patient than the expression of words. The facility with which a patient with aphasia can write numerals had been remarked upon by Dr. Bastian, and similar observations had been made by other observers. He thought that number symbols differed from word symbols in that (1) they were learnt by rote; (2) they were never associated with emotion; and (3) they were closely related with touch. He thought that this close relation with touch might form the connecting link between the auditory and visual centre, although the commissure between these two centres was broken. The touch centre, however, failed when attempting the more complicated numerals of the three or more figures. The centre for such touch perceptions had been variously located in the gyrus fornicatus, the hypocampus, and the motor centre of the cortex. Regarding the case from a surgical point of view the danger of opening such a cyst which was in communication with the ventricle should always be held in mind. He suggested that the fits which occurred towards the termination of the case might have been due to the increase of pressure in the cyst and might have been relieved by trephining.—The PRESIDENT related a case in which there was remarkable separation of aphasia and agraphia. A man aged thirty-nine years had a severe fit from which he recovered after a few hours.

It was then found that he had right hemiplegia, he could understand all that was said to him, but had almost complete loss of speech, being only able to say, "No," "Jong," and "Yah." He, however, wrote with great freedom and intelligence, writing with the left hand, he being a left-handed man. It was suggested that he wrote with one side of the brain and spoke with the other. An interesting case of a similar condition occurred in Dr. Samuel Johnson, who during the night had a curious sensation in his head. He found he had lost the use of speech, but he could write well. He wrote Latin verse and wrote to Dr. Heberden in Latin, thus convincing himself that his intelligence was unimpaired.—Dr. BASTIAN, referring to the comments made by Sir William Broadbent, who doubted if the lesion were progressive, thought the increase of the hemiplegia and anæsthesia during the later years of life certainly pointed to a progressive lesion. Sir William Broadbent and he had started from the same platform; but the former had assumed a separate centre in the cortex on the sensory side which he called the "naming centre," and also a centre on the motor side which he called the "propositionising centre." He did not think it necessary to assume the existence of these centres. He thought that part of the general centre of hearing and vision was marked off for the perception of words, and with regard to visual word centre this was situated in the supra-marginal and angular gyri, the general visual centre being situated in the occipital lobe. In regard to the remarks made by Mr. Spencer Watson he agreed that there was often a discrepancy in the power to express numerals and words. He suggested the view that numerals were more graphically registered on the visual centres, that they were less complex, and had a more marked individuality than letters which were combined into words. The pseudocyst was probably the result of atrophy of the cerebral substance, and as there at no time had been any evidence of intracranial pressure he did not think that any good could have resulted from operation. In regard to the case described by the President he thought it should be described as one of aphemia, and such a condition was due to a subcortical lesion, the internuncial fibres passing down to the bulb being interrupted. The word-memory was not disturbed, the intrinsic mechanism being intact.

Dr. GUTHRIE described a case of Violent Jactitations of Twenty two Years' Duration, affecting chiefly the Left Arm and Leg, treated by trephining and excision of the arm centre in the right motor cortex. The patient, who was twenty-five years of age, had suffered for upwards of twenty-two years from violent agitations which affected the left arm and leg chiefly, but also involved in a less degree the corresponding limbs on the other side. The movements were ataxic, choreoid, and clonic in character. They were increased in violence and amplitude by attempted voluntary actions. Voluntary actions on one side appeared to set up and intensify involuntary actions on the other side. The movements ceased during deep sleep, but frequently woke him up when in a dreamy condition. They were practically absent so long as he lay in complete repose and was undisturbed. Those of the left arm were in part voluntarily controlled by inward rotation and inversion of the limb, the hand being pronated and confined to the hip by a strap passed round the waist. When released from this position the movements were extremely difficult to subdue. Those of the left leg were similarly controlled by inversion and inward rotation of the limb, giving rise to a peculiar gait. The other symptoms were external strabismus and proptosis of the left eyeball, elevation of the upper eyelid, with dilatation and fixation of the pupil. The right eye was unaffected. The tongue deviated strongly to the right on protrusion. The speech was drawling, hesitant, and of varied intonation. The symptoms seemed to indicate functional perversion of the right motor area of the cortex. The patient was therefore trephined and this area exposed. The cortex was healthy in appearance, but on electrical stimulation of the face and thumb centres fits of Jacksonian epilepsy were produced. The thumb centre with the adjoining areas of cortex, measuring about one and a half inches in diameter, were excised. The result of the operation was complete paralysis of voluntary movement of the left hand and arm, lasting about a week. During this time he had seventeen epileptic fits, at first affecting the right side only, but latterly becoming universal. The left arm, however, during the intervals between the attacks remained flaccid and motionless. He also showed symptoms of partial bulbar paralysis for several days. After a week had elapsed voluntary and at first normal actions of the left arm were recovered, but they became increasingly jerky and ataxic, until three months later his condition was as it had been before the operation. It is concluded that:—1. The excision of single cortical centres is only likely to arrest movements permanently when they are extremely limited in range and extent, but in such cases the operation is unnecessary. 2. In severe cases such as the present extensive removal of cortical areas might possibly arrest the movements permanently, but the possible advantages of the operation are outbalanced by its dangers.—Mr. SPENCER WATSON said he had seen a similiar condition in a girl aged sixteen years, attended by movements on the right side. He had performed various operations—tenotomies, neurotomies, and neurectomies, but without any beneficial result. About two years ago she had been trephined, but without any satisfactory result; in fact, her condition had been much worse.—The PRESIDENT remarked that medical knowledge was often greatly advanced by the report of such cases as these, which were not successful.—Dr. GUTHRIE, in reply, said that his patient nearly died from bulbar paralysis. A similar condition had been shown to occur in a case where blood clot was found in the fourth ventricle, and suggested that in this case it was due to pressure on the medulla.

OBSTETRICAL SOCIETY OF LONDON.

Exhibition of Cases and Specimens.—Porro's Operation.

A MEETING of this society was held on Dec. 2nd, Dr. F. H. CHAMPNEYS being in the chair.

A report on a case of Tubo-ovarian Abscess exhibited by Dr. WALTER TATE was read.

Mr. HUBERT ROBERTS read a short note of a case of Primary Epithelioma of the Vagina and illustrated his remarks by microscopical slides and a drawing.

Dr. DAKIN showed a Cast from the Uterus having all the characters of the decidual membrane found in connexion with ectopic gestation and a small ovarian cyst with microscopic section of each.

Dr. AMAND ROUTH exhibited an entirely detached Uterine Fibroid removed by laparotomy.

Dr. JOHN PHILLIPS showed (for Dr. JÄGER) a Fœtal Monstrosity resulting from Amniotic Adhesion to the Skull.

Dr. H. R. SPENCER then read a paper on three cases of Cæsarean Hysterectomy (Porro's operation) and exhibited some charts and photographs. Case 1 was that of a woman aged twenty-eight years who had had no children, but one abortion, which occurred after a protracted pregnancy (299 days from last menstruation). She was operated upon in labour, which was absolutely obstructed by fibroids in the lower segment. The uterus removed weighed 6 lb. The mother and child recovered and were quite well four years later; the former had gained 21 lb. in weight and still had flushes occasionally. The sexual passion was lost for fourteen months after the operation and then reappeared. The scar was quite sound and free from hernia. In Case 2 a primipara aged twenty-one years was operated upon in labour, which was absolutely obstructed by a large sacral enchondroma. The patient was suffering from hydronephrosis and nephritis at the time of the operation and died on the ninth day apparently from uræmia. The child recovered. An account of the naked-eye and microscopic appearances of the tumour was given. In Case 3 the patient, who was thirty-three years of age and had had five children, was delivered of a living child through a cancerous cervix on March 25th, 1893. The cervix was removed by the high amputation fifteen days later. Fourteen months later the patient became pregnant and the fundus of the vagina became completely closed by cicatrix. Cæsarean hysterectomy was performed near term on March 6th, 1895, labour not having commenced. The mother and child recovered and the patient was free from recurrence of the cancer and from hernia on April 30th, 1896, more than three years after the supra-vaginal amputation of the cervix. The sexual passion was lost after the hysterectomy. For simple cases of contracted pelvis Dr. Spencer preferred Cæsarean section to Cæsarean hysterectomy. He had performed the former operation also on three occasions, each time with success. He discussed the employment of Cæsarean hysterectomy in the cases now recorded and directed attention to their chief features of interest.—

Dr. ARTHUR GILES, in referring to Dr. Spencer's second case, said that enchondroma or osteoma of the sacrum impeding labour was such a rare complication that he thought it would be of interest if he mentioned a case which had come under his observation. The patient had had two children; the last, born eight years previously, was delivered with forceps. Vaginal examination showed a hard hemispherical mass the size of half an orange springing from the second and third sacral vertebræ in the median line. The conjugata vera was in consequence reduced to three and three-quarter inches. It was thought advisable to perform podalic version, and he did so before the membranes were ruptured. The labour then proceeded in a natural manner. He had not an opportunity of ascertaining the true nature of the tumour, but from its position and extreme hardness thought it to be either an enchondroma or an osteoma.—Mr. HUBERT ROBERTS asked if in ordinary cases of Cæsarean section Dr. Spencer considered it necessary to take the uterus out of the abdominal cavity after extraction of the child as it could be sutured *in situ*, and taking out the uterus and exposing it to cold appeared to involve greater shock. He also asked if Dr. Spencer under similar conditions used vaginal drainage or used vaginal or intra-uterine douche after the operation, and whether any failure of contraction of the uterus subsequently to the use of the elastic ligature or even constriction by the hands had been noted.—Dr. PETER HORROCKS thought that possibly the intra-peritoneal method would have been a more satisfactory operation in two of the cases at least. He asked if there had been any pain through dragging on the scar subsequently to operation. He suggested that the fatal case might possibly have been due to absorption from the distal end of the stump of septic matter, which was always a danger unless the vessels were kept thoroughly compressed by the serre-nœud. — Dr. DRUMMOND ROBINSON referred to the method of completing the uterine wound adopted by Dr. Spencer in two of his cases—viz., tearing with the fingers. He had recently when assisting at a case of Cæsarian section been surprised at the ease with which the uterine tissue tore. He asked whether this was also Dr. Spencer's experience and whether in the cases narrated in his paper he had been able to regulate the amount and direction of the tear.—Dr. SPENCER, in reply, stated that the drainage-tube was employed in Case 3 because owing to the complete closure of the vaginal cicatrix a small cavity was left below the wire of the serre-nœud in which blood might have collected and have become infected without means of exit until the stump came away. He thought that the uterus should not be removed from the abdomen before the Cæsarean incision was made; after the delivery of the child he withdrew the organ from the abdomen in order to avoid soiling the peritoneum and to facilitate compression. He had adopted the extra-peritoneal method of treating the stump because he believed it to be the safer one. He had never known patients to complain of dragging upon the scar left by the stump, and he regarded the greater liability to hernia as the only serious objection to that method of operating. In reply to Dr. Robinson he could state that it was very easy to tear the uterine muscle, but his experience in another case showed that the direction of the tear could not be sufficiently controlled by the operator.

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN.

Formalin as an Antiseptic in Dental Surgery.—Retarded Dentition.—Electric Annealing of Gold.—"Open Bite."

AN ordinary meeting of this society was held at 40, Leicester-square, W.C., on Dec. 7th, Mr. R. H. WOODHOUSE being in the chair.

Mr. W. E. HARDING referred to the value of "Formalin" as a Germicide in the treatment of Septic Root Canals, and pointed out that he had obtained excellent results with a solution of 1 of formalin to 5 of water.

Mr. J. H. REDMAN gave the history of an interesting case of Retarded Dentition. The patient when first seen at the age of twenty years had only one canine, one bicuspid, and eight molars of her second dentition erupted. An examination of the alveolar border was made and as there were no indications of the presence of the missing teeth artificial substitutes were inserted. Six months afterwards a swelling appeared on the left side of the upper jaw, an examination of which disclosed the presence of a malformed tooth, which, however, did not erupt. Five years subsequently the patient became subject to severe neuralgia in both jaws, and a hard swelling appeared at the base of the nose under the lip. An anæsthetic was given, the swelling thoroughly opened, and three teeth were removed—namely, a canine and two incisors. There was a family history of missing teeth in relatives on both the father and mother's side.

A communication was read from M. POINSOT dealing with Electric Annealing of Gold. He submits gold foils to the action of an electric current growing progressively from 0 to 2·5 amperes, the operation lasting half a minute. By this method the metal retains all the softness and malleability of non-cohesive gold, but yet possesses to a superlative degree the properties of the cohesive gold.

A paper on "Open Bite" was read by Mr. J. F. COLYER. In this deformity the upper and lower teeth fail to meet in a normal way. Mr. Colyer considered his subject under two classes—namely, (1) cases where the bicuspids and molars shut together, the superior and inferior anterior teeth being separated from one another by a space more or less oval in shape; and (2) cases where the bicuspids and molars share in the deformity. He pointed out that Class 1 could often be attributed to such causes as thumb and finger sucking as well as to the constant use of the so-called "baby comforters." In Class 2 the etiology was, he thought, more obscure. In a few instances badly fitting regulation plates were the cause, but the majority of cases were due to some defective development of the ascending ramus, combined at times with an arrest in development of the superior alveolar process. He stated, too, that in many cases he had noticed a marked bending of the mandible at a point corresponding to the insertion of the most anterior fibres of the masseter muscle, and after discussing the various theories which had been advanced to account for open bite he suggested that the action of muscles might have some influence in producing the bend in the bone and so the open bite, pointing out in support of his argument that the principal force of the muscles attached to the anterior part of the mandible was in a downward direction and to the posterior part in an upward direction. With regard to treatment, he considered that but little could be done to correct the deformity when due to such cases as thumb-sucking. The cases seen prior to the eruption of the second dentition were the most favourable. The treatment of his second class—namely, cases where only the most posterior teeth shut together—was considered under several headings. He laid stress on the removal of all causes of nasal obstruction, as he considered that this condition was in all probability directly or indirectly a cause of the deformity.—The paper was illustrated throughout by lantern slides of cases treated by different methods. A lively discussion ensued, to which Mr. COLYER briefly replied.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.

Exhibition of Cases.

A MEETING of this society was held on Dec. 4th, Mr. W. BRUCE CLARKE, President, being in the chair.

Dr. HENRY SUTHERLAND showed the following three cases: 1. A patient with Multiple Fatty Tumours aged fifty-eight years. The tumours had existed since birth and were attributed by the patient to a maternal impression. 2. A patient with well-marked Varicose Veins affecting the lower extremities. 3. A patient with a Supernumerary Nipple situated below the left nipple.

Dr. GEORGE JOHNSTON showed a case of Facial Hemiatrophy. The patient, aged twenty-one years, noticed sixteen months ago that the left side of her face was becoming thinner than the right. This had steadily increased so that the left side of the face was sunken over the upper jaw and teeth, with increased prominence of the malar bone. The muscles acted well and their electrical reaction was normal. The skin was paler and smoother than that of the sound side. The bones did not appear to be atrophied. There was no affection of sensibility or taste. No cause was known for the onset of the disease.

Dr. CAMPBELL POPE showed a case of Fracture of the Lower Epiphysis of the Humerus with Radiograph in a child aged eight years.

Mr. KEETLEY showed the following cases:—1. A girl aged thirteen years with Congenital Dislocation of the Right Hip. She had shortening of the limb to about three and a half inches. By division of the straight head of the rectus, some other tense muscular fibres and fascia, and the anterior part of the capsule of the hip-joint, together with extension gradually increased to 16 lb. (which was comfortably borne), the shortening was reduced to one and a half inches. Three days previously under ether an extension of 84 lb. was applied for twenty minutes, which reduced the shortening to three-quarters of an inch. A part of this was doubtless due to mal-development of the head and neck. There was no acetabulum. An operation will be undertaken to make an acetabulum in order to place the head of the femur in it. 2. A child aged three years with Dislocation of the Head of the Left Femur, which had been replaced and was being maintained in an abducted position by means of a plaster-of-Paris splint.

Dr. CHARLES W. CHAPMAN showed a Cretin demonstrating the improvement which had occurred under thyroid treatment.

Dr. G. H. ROBINSON showed a patient who had had an Ovarian Tumour removed nineteen years ago, the pedicle being clamped in the abdominal wound. Hæmorrhage still occurred from the abdominal scar during menstruation.

Dr. P. PATON showed a case of Nephro-lithotomy with the stone removed and a specimen of Rupture of the Bladder.

Mr. MCADAM ECCLES showed a girl aged sixteen years with Multiple Exostoses. Two brothers and her father were similarly affected. Exostoses existed in the following situations: the first phalanges of each finger and the second and fourth metacarpals of the right hand, the first phalanges of the second, third, and fourth fingers of the left hand, the lower end of the right radius, the upper end of the right humerus, the acromial end of the right clavicle, the lower ends of the right and left femora, the upper ends of the right and left tibiæ, and the lower end of the right tibia.

Dr. SEYMOUR TAYLOR showed a patient aged fifty years with Right Hemiplegia.

ISLINGTON MEDICAL SOCIETY.

Gall-stones treated by Olive Oil.—Foreign Body in the Rectum.

A MEETING of this society was held at 81, St. Paul's-road, Highbury, on Nov. 24th, Mr. G. T. KEELE being in the chair.

Dr. BUENO DE MESQUITA read the notes of a case of Gall-stones treated by Olive Oil. The patient was a woman aged forty years who had suffered for two years from frequently recurring attacks of colic characteristic of gall-stones. She was put on olive oil, of which she took six ounces per day. From the time the treatment was started the attacks, which had been very severe, ceased entirely and had never reappeared after a lapse of one year. After taking the oil for three months the patient noticed a large quantity of pigmented powder on the surface of her motion. This she collected, washed, and dried and brought to him. On microscopical examination it was found to consist of cholesterine crystals. The original specimen was shown to the society, and consisted of well-defined glistening crystals. The case was interesting, as it demonstrated the way in which the oil had acted upon the stone—namely, by dissolving it, thus facilitating its passage along the ducts.

Dr. BUENO DE MESQUITA also related the particulars of a case of Foreign Body in the Rectum. The patient was a woman who had suffered from fissure of the anus. The attacks had been so acute that an operation had been advised but declined. When seen she had just had relief of the bowels, and during the act great pain was experienced, which still continued. The history of the attack resembling that of fissure the anus was examined and an old, partially healed fissure was found, but this not appearing sufficiently recent or angry-looking to account for the excruciating pain the rectum was examined and a meat bone, about an inch long and a sixth of an inch broad, was found penetrating the mucous membrane of the rectum. This was removed and the patient at once relieved. The bone was unconsciously swallowed with some broth four days previously. The case was interesting, first, from the fact that the bone had passed through the whole intestine without causing trouble till it reached a comparatively safe region—the rectum; and secondly, because it showed the importance of thoroughly examining a patient in all cases of local pain.

NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.

Prevention and Treatment of Enteric Fever.

AT a meeting of this society held on Dec. 2nd, Dr. W. B. RANSOM, President, being in the chair, a discussion on the Prevention and Treatment of Enteric Fever was introduced by Dr. BOOBBYER, Dr. HANDFORD, and Mr. WRAY.

Dr. BOOBBYER expressed the opinion that the nidus of the disease was almost certainly in the soil and showed that its frequency had lessened contemporaneously with improved sanitation. He said that the common vehicles of its conveyance were mainly food and water. In country districts an outbreak could often be traced directly to the impure water-supply, but in large towns the prime cause could rarely be discovered. Inquiry proved that the disease was conveyed to the residents and nurses in hospitals more frequently than writings showed. The local death-rate from typhoid fever, which was high, had remained stationary for the last thirty years, and appeared to be influenced by the system of sewage disposal. In Nottingham 79 per cent. of the houses had pail closets, 1 per cent. middens, and 19·5 per cent. waterclosets. In the year 1895 87·7 per cent. of the cases of enteric fever occurred in houses with pail closets, 7·8 per cent. in those with middens, and 4·4 per cent. in those with waterclosets, but some allowance should be made for the situation and the class of people. The suggestions offered were—(1) the provision of hospital accommodation; (2) the warning of attendants as to personal cleanliness; (3) the substitution of waterclosets for middens and the removal of all household refuse daily; and (4) the placing of a layer of concrete below every house.

Dr. HANDFORD, after alluding to the subject of case mortality based on 267 consecutive cases, laid importance on the fact that early treatment and rest mitigated the mortality; thus, of twenty nurses attacked in the Nottingham General Hospital during the last twelve years all had recovered. He looked upon the treatment of the abdominal symptoms as being the most important and said that constipation should be avoided, especially if associated with tympanitis; that diarrhœa should not be checked unless it exceeded three or four motions in the twenty-four hours, and that the motions should be inspected daily, especially to see if any undigested caseine be present as an indication that the patient was being overfed or required some modification from a milk diet. He condemned the use of antipyretics, but advised cold or tepid sponging. In intestinal hæmorrhage he believed that opium was the most useful drug. Referring to the occurrence of relapses, he considered constipation to be the chief remediable cause.

Mr. BURY WRAY discussed the biological cause of the disease and referred to the danger arising through direct infection from unrecognised cases and from the too early discontinuance of disinfecting the excreta of convalescent patients.

Dr. MACKENZIE instanced an outbreak initiated by drinking impure water; he also mentioned cases where the infection had apparently been conveyed by the air.

Mr. LITTLEWOOD stated that for twenty years typhoid fever was always present in Sutton-in-Ashfield, but since the introduction of a new water-supply it had only occurred sporadically. He mentioned a rural outbreak of fifty cases which owed its spread to the configuration of the ground and the habits of the people.

Dr. RINGROSE made remarks on eighty hospital cases occurring at Newark between the years 1891 and 1893. Fifty-six cases were traced to the water-supply derived directly from the Trent, six cases to contaminated wells, four cases to the milk-supply, and one case occurred in a hospital attendant.

Mr. WILLS stated that since the year 1893, when a fresh water-supply was introduced into Newark, the number of deaths from typhoid fever had fallen to zero and the number

of cases to eight or nine a year, and many of these arose from drinking the river water.

Dr. WOOD pointed out some distinctions between epidemic and sporadic outbreaks. He advocated a water-sewage system and thought that the closets should be detached from the houses.

Dr. TRESIDDER, commenting on the suggestions of Dr. Boobbyer, endorsed the abolishment of the midden closets. He thought that the local authorities should be responsible for the arrangement of the drains inside the house and that plans of the drains should be deposited with them.

Dr. PESKETT referred to an experience of seven years in a town in the South of England, where the disease markedly abated on the establishment of a new water-supply, though the sewage system, chiefly middens, remained unchanged.

Remarks were made by Dr. HUNTER, Dr. MUTCH, and Mr. PRYCE.

The PRESIDENT expressed a strong belief in the spread of typhoid fever by personal contagion, of which he gave instances occurring in the cases of nurses and hospital attendants. He stated the importance of remembering that the vitality of the bacilli was considerable and that they might be found not only in fæces, but in urine and sputum and lived long outside the body. The necessary precautions were prevention of dried excreta reaching the dust of the room or the clothes of the nurse as well as careful washing and disinfection of the hands of the latter and disinfection of the patient's stools. He mentioned that the typhoid fever mortality at the Nottingham General Hospital for the last five years was 8·2 per cent. and that of the whole borough was 15·5 per cent., thus showing the influence of good nursing.

MANCHESTER MEDICAL SOCIETY.

Extensive Healed Phthisis.—Acute Pulmonary Miliary Tuberculosis.—Pulmonary Thrombosis.—Sudden Death from Natural Causes.—Elastic Pressure in Surgery.

A MEETING of this society was held on Dec. 2nd, Dr. HENRY ASHBY being in the chair.

Dr. THOMAS HARRIS reported a case of a man aged thirty-two years who gave the following history. He stated that four years ago he had two attacks of profuse hæmoptysis, but beyond staying in bed at that time for a week and going into the country for ten days he had received no special treatment, and he had apparently got quite well. Another attack of hæmorrhage took place last December, from which he recovered and again followed his vocation in a very unhealthy part of Manchester. No troublesome cough was left after any of these attacks of hæmorrhage and he had not thought seriously of them, because, as he said, two of his brothers had had similar attacks and were now in good health. On Sept. 16th, 1896, hæmorrhage again came on and was repeated on the 23rd, 24th, and 26th of the same month, about a pint of blood being lost on each occasion. After Sept. 26th his cough became troublesome and he began to lose flesh. On Oct. 21st he was troubled with dyspnœa, which became extremely marked and very troublesome so as to necessitate the upright position. Although he had marked dyspnœa there was no lividity, the face being very pallid. On Oct. 27th Dr. Harris saw him, and at that time he was sitting up in bed looking very pale, with very frequent respiration and an extremely small pulse of about 180 per minute. The following day he died and at the post-mortem examination about eight old caseous patches were found in various parts of the lung, all being well circumscribed and showing no signs of activity. Another caseous patch was not so circumscribed and appeared at its periphery to be spreading. Scattered throughout both lungs were myriads of miliary tubercles and the various branches of the pulmonary arteries in both lungs were thrombosed, the thrombosis being more general and more extensive in the left than the right lung. The thrombosis had apparently started at the periphery—that is to say, in the smaller vessels—and spread thence towards the main vessels.

Dr. DIXON MANN read a paper in which cases of Sudden Death from Natural Causes were divided into two groups—those which yield satisfactory post-mortem evidence as to the cause of death and those which only afford inferential evidence or in which no post-mortem evidence whatever can be discovered. The second group includes many diseases which when fatal are not usually suddenly fatal; it also includes those rare cases in which death immediately occurs to individuals who are labouring under unwonted excitement or profound terror. Instances were given in which owing to extreme apprehension on the part of the patient death had suddenly followed simple medical examinations.

Mr. HARDIE made a communication on "The Use of Elastic Pressure in Surgery" and showed a number of patients.

BRADFORD MEDICO-CHIRURGICAL SOCIETY.

Exhibition of Cases and Specimens.—Cerebral Tumour.—Rupture of the Uterus; Recovery.—Suppurative Nephritis.—The Aldine Edition of Galen.

A MEETING of this society was held on Dec. 2nd, Dr. CARTER, President, being in the chair.

Dr. HAMILTON CRAWFORD gave a Demonstration of Microscopical Specimens.

Dr. BUCHANAN MORTON showed a patient with a Tubulo-Dermoid Cyst in connexion with the thyroid body.

Dr. C. F. M. ALTHORP showed a case of Undescended Testis operated on four months previously.

Mr. WILMOT showed a case of Hemianæsthesia the result of a lesion of the internal capsule, probably embolic in nature.

Dr. GLADSTONE showed cases illustrating the Effects of Injuries to the Nerves of the Arm. One case of division of the median nerve showed the rare result of wasting of the bones of the hand.

Mr. ROBERT MERCER related a case of Cerebral Tumour (carcinoma) occupying the subcortical region of the middle frontal convolution on the left side. The patient was a woman fifty years of age and the illness was of three months' duration. The symptoms were at first headache and vomiting, with staggering gait. There was mental disturbance, the patient taking no interest in anything around her, and being with difficulty aroused from a semi-comatose condition. Later paresis of the left hand came on. Double optic papillitis was present. An operation was decided on with the view of relieving pain and a trephine opening was made exposing the lower portion of the Rolandic area on the left side, the paralysis of the hand pointing to this as a possible situation of the tumour. The brain was explored in several directions, but no disease was found. The brain bulged an inch out of the wound and did not pulsate. Some cerebro-spinal fluid escaped into the exploring syringe, evidently from the lateral ventricle. The protruding brain substance was cut off and the wound closed. Consciousness was not regained and the patient died in twenty-four hours. Post mortem a tumour was found occupying the situation already indicated.—Dr. MAJOR discussed the possibility of a successful operation.—Dr. CAMPBELL and Dr. MAJOR also discussed the case and Mr. MERCER replied.

Mr. MERCER further related a case of Rupture of the Uterus with recovery of the patient. The patient was in labour with the sixth child in seven years, previous labours having been natural. She was seen in the morning, when the os was found to be partly dilated and the membranes ruptured. The pains were weak and irregular. She remained in the same condition all day till 7 P.M., when she became suddenly collapsed. On examination the placenta was found in the vagina, but the child was not at first felt. The uterus was distended with clot and a transverse rent was felt just above the posterior fornix. On passing the hand through this the child was found loose in the abdominal cavity; it was seized by the leg and delivered, the head passing through the rent with difficulty. The condition of the patient not permitting of any operative measure a pint of normal saline solution was injected into the basilic vein, but no improvement of the pulse resulted. The vagina was swabbed out with antiseptic solution, but no syringing was employed. There was a slight attack of peritonitis, but the patient eventually recovered after a prolonged convalescence. No cause for the rupture was discovered.—Dr. BELL, Dr. WOOD, and Dr. GOYDER discussed the case.

Dr. T. JASON WOOD showed the kidneys and related a case of Suppurative Nephritis which was unattended during an illness of seven months' duration with albuminuria. The patient was a single woman aged twenty-eight years. Her illness commenced seven months before her death with "rheumatic" swelling and pains of the joints. This did not

subside under sodic salicylate treatment. After about four months enlargement of the spleen and lymphatic glands was detected, but there was no interference with the urinary function or albuminuria found till about ten days before death. The patient died from practical suppression of urine. At the post-mortem examination the kidneys were found to weigh thirty-five ounces between them, and one contained numerous small abscesses. Microscopical examination showed interstitial nephritis. Micro-organisms were shown in the inflammatory cells. There were no infarcts in the spleen or elsewhere.—Dr. CAMPBELL and Dr. GOYDER discussed the case. No cause for the septic abscesses was suggested.

Dr. RABAGLIATI showed a copy of the Aldine edition of Galen, four volumes, in the original Greek text.

PLYMOUTH MEDICAL SOCIETY.

Exhibition of Cases and Specimens.—Microscopic Section of Rodent Ulcer.—Apical Pneumonia.

A CLINICAL MEETING of this society was held on Nov. 28th.

Mr. WOOLLCOMBE showed:—1. A young woman with a Typical Rash and Periosteal Nodes on the Clavicle and Cranium, in whom the pains in the bones had been so severe previously to the appearance of the nodes as to occasion the free exhibition of phenacetin, antipyrin, &c. 2. A child aged three and a half years with Congenital Loss of Voice. The thyroid cartilage was imperfectly developed and laryngoscopy showed the right cord to be fixed midway between abduction and adduction and very small. The left cord moved freely, but was also under-developed and could not meet its fellow. 3. A child aged fifteen months with various developmental defects including an absence of the Lower Epiphysis of the Right Tibia and consequent great inversion of feet. Mr. Woollcombe proposed removal of the external malleolus, straightening of the feet, and placing it in a position such as that obtained by Mikulicz's operation.—Mr. LUCY supported this.—Mr. FOX advised a Thomas's knee splint.

Mr. RIDER showed a child with Congenital Morbus Cordis and Sacral Dimple which he regarded as an instance of spina bifida occulta.—Mr. LUCY pointed out that the dimple was over the coccyx and was probably an incomplete inversion of the epiblast, the first step towards what Mr. Bland Sutton describes as post-anal cyst.

Mr. RIDER also showed a specimen consisting of the Cæcum, the Lower Portion of the Ilium and Appendix with the Distal Extremity gone, which he had removed at a post-mortem examination of the body of a person who died from rapid suppurative peritonitis. He regarded the vermiform appendix as the cause of the trouble.—Several members pointed out that the appendix appeared quite healthy and not discoloured, and suggested the probability that it was injured in removal and that there was another cause for the peritonitis.—Mr. RIDER, however, was positive no injury had occurred in removing the specimen.

Mr. WEBBER demonstrated a Microscopic Section of Rodent Ulcer.

Mr. WHITEFORD read notes of a case of Apical Pneumonia and advocated free use of quinine.—Mr. WEBBER, Mr. FOX, Mr. LUCY, Mr. WOOLLCOMBE, Mr. PULLEN, Mr. E. SQUARE, and Mr. WHITEFORD took part in the discussions.

KIDDERMINSTER MEDICAL SOCIETY.

Exhibition of Cases and Specimens.—Acute Rheumatism.—Anthrax.—Notes on Midwifery.

A MEETING of this society was held at the Kidderminster Infirmary on Nov. 27th, Mr. W. MOORE, President, being in the chair.

Mr. J. L. STRETTON mentioned that a woman from whom he removed a large ovarian tumour with twisted pedicle last April was safely delivered of a living child on Sept. 22nd.—Mr. J. L. STRETTON showed the following cases:—1. A young married woman aged twenty-six years the Left Side of whose Body was quite Cold in comparison to the right. The pulse on the cold side was considerably more feeble than on the opposite side. The cardiac sounds were natural. Analysis of the urine gave negative results and nothing was discovered by ophthalmic examination. There was an uncertain specific history. 2. An old man aged sixty-nine years upon whom he operated for Fractured Patella after the method described by Mr. A. E. Barker. There had never been any bad symptom and the man could walk for miles without experiencing any discomfort. The bone was in close union and the wire did not give any trouble. 3. A large Ovarian Cyst, with several smaller cysts at the base. It contained twelve pints of fluid and there were strong adhesions, which caused the operation to be prolonged to one and a half hours. 4 Two Cystic Ovaries removed from a case of Uterine Fibroid. 5. Double specimens from two cases of Cataract Extraction.

Dr. EVANS read the Notes of a case of Acute Rheumatism in a young girl complicated by Pericarditis and Chorea of an exaggerated type and ending in complete recovery. He then related a case of Anthrax in a Wool-sorter. He had excised the pustule and treated the wound with ipecacuanha paste whilst administering ipecacuanha internally. The man made an uninterrupted recovery. Cultivations of the bacilli were exhibited.—The specimen was shown from a case of Compound Multiple Fracture of the Patella in an old man necessitating amputation.

Mr. W. HODGSON MOORE showed a young girl with Irregular Enlargements of some of the Bones, notably the Tibiæ. He regarded it as a case of osteitis deformans.

Mr. E. S. ROBINSON read a paper entitled "Notes on Midwifery."

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

Exhibition of Cases and Specimens.—"Trade-like" Movements following Head Injuries.—Apparent Reduplication of the Second Sound in Mitral Stenosis.

THE second meeting of this society was held on Dec. 2nd, Dr. CRAIG occupying the chair.

Dr. LITTLEJOHN showed three cases of medico-legal interest:—(1) A case of sudden death the catastrophe being due to the Impaction of a Large Piece of Meat in the first part of the œsophagus in an edentulous old man; (2) an Aorta showing a Rupture on its Posterior Wall through which hæmorrhage had taken place into the pericardium; the person from whom the specimen was obtained was a woman who had been found dead; and (3) Specimens from a woman who had been found dead with injuries about her head. In this case also an aneurysm of small size on the posterior aspect of the aorta had ruptured into the pericardium causing death.

Mr. CATHCART showed specimens of Melanotic Sarcoma and Scirrhus from the same patient. He also showed a large Tumour of the Parotid. He showed both these and some other naked-eye specimens to illustrate the advantage of hardening and preserving in Torre's method. Some of the sections had been mounted in glycerine-jelly and showed the colour and structure well preserved.

Mr. ALEXANDER MILES (surgeon to Leith Hospital) read a paper on "Trade-like" Movements following Head Injuries. In his paper Mr. Miles gave an account of several cases of severe head injury in which the patients showed the performance of regular and coördinated movements, which were found to be simply certain movements which they had habitually performed in working at their respective trades. The first case was that of a plumber aged twenty years, who fell from a height of sixty feet. He sustained a scalp wound, but was believed to have no fracture of the skull. One of his legs had to be amputated owing to great crushing of the limb. He became restless and delirious, and kept continually making movements which a fellow-workman described as those used in beating out lead. Before his death (three days after the accident) his mental state improved, but the movements persisted more or less. The post-mortem examnation showed numerous ecchymoses into various parts of the brain and no fracture of the skull. The next case was that of a sculptor who fell from a scaffolding a distance of thirty or forty feet. Immediately after the accident he became so violent that it was necessary to inject hyoscine hypodermically. He presented two scalp wounds and evidence of a fracture of the spine. After the hyoscine had been administered he became quieter, but for some hours he was observed to move his arms in the rhythmical movements of a sculptor at work. He died ten days after the

receipt of his injuries, and post mortem it was found that the cord was completely torn across by a fracture-dislocation in the dorsal region. There was no fracture of the skull, but the brain substance showed numerous small hæmorrhages in different parts. The third patient was a man who fell to the ground from a ladder while painting a sign-board. He survived his injuries, but for some time was completely blind. Before recovering consciousness he used his hands in painting imaginary sign-boards on a screen beside his bed. Remarking on these cases Mr. Miles pointed out how much similarity there had been in the post-mortem appearances in the two fatal cases. In the brain of each there had been hæmorrhages into the right occipital lobe, the angular gyrus, the surface of the motor areas, and into the frontal lobes. Mr. Miles did not believe that the symptoms could be ascribed to any one of these lesions. He believed that the delirium after the accidents had been due to the anæmia of the brain which the concussion gave rise to, and that this anæmia together with the hæmorrhages had brought about a condition of instability of the nerve cells. The cells in their unstable condition were much more sensitive to stimuli and it seemed natural that those cells which were most constantly in use in discharging nerve energy should be the most sensitive of all. The first two cases showed other symptoms besides the "trade-like" movements which he thought might be explained in the same way. The patients in the stage of delirium failed to recognise those standing round them and addressed them by the names of near relatives. The failure of the patients to recognise their friends was probably due to the slight lesions present in the angular gyrus and in the occipital lobe, while the tendency to produce the names of those with whom they were most familiar was probably, as in the motor areas, an indication of the unstable condition of the cells in the visual centre, leading them to recognise those whom they were most accustomed to see. Dr. BELL remarked on the interest of the paper; he had not met with those "trade-like" movements; but he was familiar with the wrong naming of people by those suffering from head injuries.—Mr. GUY, referring to the subject of the paper, said that the phenomena described were familiar to dentists. It was very frequently observed that as a patient was inhaling nitrous oxide gas he addressed those about him as parents or relatives, and that as he became still further anæsthetised he performed the movements common in his occupation.

Dr. FRANCIS D. BOYD read a paper on Apparent Reduplication of the Second Sound in Mitral Stenosis. The condition he discussed was that in which in some cases of mitral stenosis a reduplicated second sound was audible at the apex, while no such reduplication was to be heard on auscultation over the aortic and pulmonary areas at the base. The first question to be considered seemed to be, Was the reduplication real or apparent? Dr. Boyd thought that the limitation of the area of audition to the apex of the heart made it evident that the reduplication was not real but apparent. How was this apparent reduplication to be explained? Many theories had been advanced with regard to it. After referring to the theories of various observers on the question Dr. Boyd said that he, working in the laboratory of the Royal College of Physicians of Edinburgh with an apparatus constructed on lines somewhat similar to that of Ceradini, had found that unless closure of the valve was accompanied by tension of its cusps the closure produced no audible sound. He found that in order to produce a perceptible sound on closure of the valve it was necessary that the pressure in the pulmonary artery should be raised to between 20 and 30 mm. of mercury. In mitral stenosis the first element in the reduplication under discussion was much accentuated, and it was difficult to believe that it was merely due to a falling together of the valve flaps. Dr. Boyd then cited a case which he believed threw light on the condition. A pale, slightly built man came to the Royal Infirmary complaining of shortness of breath which had lasted for about a year and had commenced with a severe cold. The patient showed no dyspnœa while at rest, but this became marked on the slightest exertion. Auscultation in the mitral area revealed a loud presystolic murmur, ending in a sharp, pure first sound. This was followed by a loud reduplication of the second sound, the two elements of the reduplication being separated by a distinct interval. At the base the second sound was accentuated at the pulmonary area and apparently normal at the aortic area. No reduplication was heard in that situation. On the following day, however, the presystolic murmur and first sound were audible as before, but following the first sound came an accentuated second sound and then a short murmur. The second element of the apparent reduplication had become lengthened out and transformed into a murmur, produced at the mitral orifice and diastolic in time. Guttmann had pointed out that, as in this case, the second part of an apparent reduplication might be transformed into a diastolic murmur. Dr. Boyd urged, in conclusion, that a reduplication heard at the apex and not at the base was apparent and not real and that the second element was produced at the mitral orifice and might actually be a diastolic murmur.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF SURGERY.

Tapping the Pericardium.

A MEETING of this Section was held on Nov. 13th, Mr. W. THOMSON, the President, being in the chair.

The PRESIDENT delivered an address entitled "Some Surprises and Mistakes," which was published in THE LANCET of Nov. 28th (page 1507).

Mr. AUSTIN MELDON read a paper on two successful cases of Tapping the Pericardium. In 1663 Riolanus first proposed paracentesis pericardii. One hundred years later Senac stated that the operation was possible, and still later Van Swieten suggested a method of performing it. In 1806 Corvisart stated that it was not justifiable. Laennec believed it was possible. It is, however, more than probable that until 1819 it was never attempted. In that year Romero of Barcelona operated with perfect success. He made his incision in the fifth intercostal space at the junction of the cartilage and rib, picked up and opened the pericardium. Jowett of Nottingham operated in 1827 and Schuh in 1839. Since that period the operation has been performed so many times and with such eminent success that surgeons are now in a position to consider the circumstances and mode of operation which conduce most to its successful issue. At present just 100 cases have been recorded, among which only once has the operation proved fatal. In this unsuccessful case the right ventricle was lacerated by the trocar. Some others have died soon after the operation, but these were cases that were moribund at the time it was undertaken. The remainder were without exception relieved and many of them cured. Mr. Meldon's first case occurred some years ago. The patient was a woman fifty-eight years of age suffering from very gradually developed hydrops pericardii. The instrument selected was a long hydrocele trocar well washed in very hot water. An incision was made into the skin two inches from the sternum in the fifth intercostal space, and in order to make it valve-like the skin was drawn up to the fullest extent possible before making it. The trocar and cannula were pushed one and a half inches backwards with a slight inclination upwards. On drawing out the trocar no fluid came, and as the point of the cannula did not move freely it was evident that the instrument had not entered the pericardium. The trocar was then pressed in a quarter of an inch further, and on withdrawing it fluid of a dark colour followed. The cannula could now be pushed in to the full extent without encountering any obstruction. When eight ounces had been withdrawn the fluid flowed very slowly, and the instrument was therefore taken out and the wound covered with flexible collodium. As the patient appeared faint a little brandy and ammonia were administered. An hour later all difficulty of breathing had disappeared, but although the patient expressed herself completely relieved a very slight cyanotic condition remained. On the following morning this was gone and her pulse was strong and regular. She left the hospital five weeks later in perfect health. The second case occurred on March 5th, 1894, the patient being a man aged twenty-six years. Ten days previously he complained of a severe pain in the right side, which was relieved by the application of mustard. Next day both knee-joints were inflamed, and this, together with the temperature and copious perspiration, marked its rheumatic nature. On March 3rd pericarditis was first diagnosed. On the 5th his condition was as follows. The breathing was extremely difficult, the respirations were 32, the pulse 108 and feeble, the heart-beat could barely be felt, and præcordial dulness was greatly increased

and extended to the fifth right intercostal space. Cyanosis and epigastric distress to a considerable amount were also present. The operation was described as follows. "Selecting the fifth intercostal space I carefully measured one inch from the left margin of the sternum. The spot thus determined I marked with ink, having previously adopted the usual antiseptic precautions. I next selected the smallest-sized needle and washed it and the aspirator by passing through some hot carbolic lotion. The vacuum was now created in the instrument and a small incision made through the skin at the point marked. I next measured two inches from the point of the needle, and here fixing my finger I plunged the needle backwards with a slight inclination upwards until stopped by my finger. The cock of the aspirator being now turned I was gratified to find serum appear in the glass. Almost immediately the patient's breathing improved to such an extent that when five and a half ounces had been removed I thought it right to withdraw the needle. I remained in the house for several hours, and when leaving the pulse was 100, the temperature 100° F., and the respirations 24. Cyanosis, dyspnœa, and epigastric distress had completely disappeared. The fluid, unlike that in my previous case, was a healthy serum." Two days later the pains in the knees returned, but were readily relieved. The fifth left intercostal space, at a point one inch to the left of the sternum, is the most suitable place for puncture. If too small a cannula be used it is apt to become plugged with flakes of lymph. Mr. Meldon believed that when there is any fluid in the pericardium it is quite safe to plunge the trocar in fully two inches.—Dr. FRAZER said he was reminded of a case which came under his notice many years ago. It was at first thought to be one of pleural effusion, but turned out to be pericardial. The patient died, and after death a measured gallon of fluid was drawn off. That case might have been beneficially treated by operation.—Sir THORNLEY STOKER said the great difficulty was not as to the propriety of opening or tapping the pericardium in cases of serous effusion, but as to how the case was to be dealt with when there was pus in the sac. Where there was pus, although the heart was relieved by the removal of it, a secretion of pus would continue where there were ulcerated or diseased surfaces; and the removal of it in the first instance was almost useless unless means for subsequent drainage were provided.—Dr. TAYLOR said he recently saw a case in Sir Patrick Dun's Hospital which was under the care of Dr. Purser. It was that of a boy who had been four or five days there with symptoms of ordinary pericarditis. He was cyanosed, cold, covered with perspiration, and in a dying condition. His pericardium was aspirated by passing a needle into the fifth intercostal space close to the sternum, and fluid came out of a sero-fibrinous character, the fœtor of which was intolerable. Over a pint of fluid was drawn off, after which the boy seemed much better. He continued better for some hours, but he died next morning suddenly with symptoms of cyanosis.

SECTION OF MEDICINE.

Pityriasis Rubra.—Guaiacol in Pyrexia.

A MEETING of this Section was held on Nov. 20th, Dr. G. F. DUFFEY, the President, being in the chair.

Dr. WALLACE BEATTY gave a description of four cases of Pityriasis Rubra, and discussed the connexion between the affection and eczema, psoriasis, and pemphigus. In his first and third cases eczema preceded the generalised eruption. In the second a psoriasis-like condition first occurred, then an erysipelas-like swelling of the face with fever, and finally a general redness and exfoliation of the cuticle. Subsequently the scaling ceased and superficial ulceration in a kind of network occurred. The patient died. The kidneys were fatty. In this case pityriasis rubra was a phase in the course of the disease. In the fourth case, still under observation, the patient, a married woman aged forty-seven years, had been subject to psoriasis of limited extent for five years. Her generalised eruption was preceded by the formation of vesicles and flaccid bullæ. Dr. Beatty regarded the general eruption as pemphigus foliaceus terminating in pityriasis rubra.—Dr. FINNY said that the colour of the skin was a remarkable feature in this comparatively rare disease; but the most striking thing about it was the large scales which appeared all over the body.—Dr. WALTER SMITH was of opinion that they were entitled to recognise under the name "pityriasis rubra" a serious and generalised inflammation of the skin, which unfortunately sometimes ended in death, and the most common antecedents of which were eczema and a psoriatic state of the skin.

Dr. DRURY read a paper on Guaiacol in Pyrexia, in which he described the method of epidermic application recommended by Rondet in 1895 for the purpose of reducing temperature as superior to either internal administration or hypodermic injection. By this method from one to ten minims are rubbed into the skin, previously washed, and the part covered with oiled silk. About fifty cases had been so treated. The conclusions arrived at were:—1. As a rule, no ill-effects follow its use. In one case of enteric fever in a female, after the use of ten minims on five successive evenings collapse occurred several hours after the fifth application; the collapse was recovered from. 2. It very rarely fails to cause a fall of temperature, the fall being greater when the temperature is high than when it is only moderate in degree. 3. The fall reaches its maximum generally about one hour after administration and is maintained for several hours. 4. After its use the skin becomes moist and the patient generally sleeps. 5. It does not seem to have any effect on the course of the disease which is the cause of the fever. 6. It seems to act on pyrexia, no matter what the disease may be which causes it. 7. It usually increases secretion of urine, diminishes the night sweats of phthisis, and often relieves the cough. 8. Cardiac failure appears to be the only contra-indication to its use.—Dr. JOHN W. MOORE deprecated indiscriminate attempts to reduce temperature, especially in typhoid fever. He had long since given up the use of phenazone or antipyrin, phenacetin, and acetanilide as reducers of temperature in typhoid fever. They were useful for relieving headache and some other symptoms of the disease; but their use as reducers of temperature was positively dangerous, and he saw no reason why guaiacol, used either epidermically or endermically, should differ very much in its action from that of those drugs. Its effects when given internally in pulmonary consumption were not so immediate and extreme as when it was used epidermically, and rather depended upon its antiseptic properties and its power of reducing the septicæmic conditions of that disease.—The PRESIDENT said that he had reduced temperature with guaiacol in one or two cases with good effect. In one case of enteric fever, the patient's temperature being at 105·4° F., fifteen minims of guaiacol were rubbed into his axilla, and in half an hour he was in a state of profound collapse, his temperature having fallen to 96°; he became almost pulseless, and it was only by the administration of stimulants and the application of warmth that he was rallied. He need not say that in that case the drug was not used again. Perhaps the dose was too large. The hypodermic injection of guaiacol had been followed by most alarming collapse.

Reviews and Notices of Books.

Roman Fever. The Results of an Inquiry during three years' residence on the spot into the Origin, History, Distribution, and Nature of the Malarial Fevers of the Roman Campagna, with especial reference to their supposed connexion with Pathogenic Organisms. By W. NORTH, M.A., late Research Scholar of the Worshipful Company of Grocers in London; formerly Sharpey Physiological Scholar in University College, London. London: Sampson Low, Marston, and Co., Limited, St. Dunstan's House, Fetter-lane, Fleet-street. 1896.

MALARIAL fevers are, from every point of view, of very great interest and importance. The amount of labour that has been bestowed upon their investigation has been enormous. The earth, air, and water of malarious localities have been physically and chemically examined and experimentally tested in all sorts of ways, and the climatic and topographical features of these localities have been minutely described in vain endeavours to discover the causes and conditions of malaria. Every civilised country is more or less concerned in these inquiries, for it may be said that human beings and malarial disease are well-nigh conterminous. Seeing, however, that this United Kingdom of Great Britain and Ireland has colonies and possessions in so many different climates, that Her Majesty's British subjects

are a most cosmopolitan and migratory race, and are distributed over, or have communication with, all parts of the world, malarial maladies have a special and abiding interest for the people of this country. Of late years the attention of medical and scientific observers has been mainly directed to the discovery of the plasmodium malariæ of Laveran, Celli, and Marchiafava, and to the life-history, morphological changes and conditions of this blood parasite in their connexion with the clinical phenomena of malarial fever.

The author of this work tells us that his original intention was to devote himself to a special study of the supposed relation of malarial fevers to pathogenic organisms; but it soon became obvious to him that his inquiry could not be restricted within this circumscribed limit, but must occupy a much wider range and embrace a number of other subjects intimately associated with what may be termed the natural history of malaria. This treatise, consisting of 395 pages and an index, and profusely illustrated by maps, charts, plates, and tables, is the result. The book is divided into thirty-eight chapters and a conclusion, in the course of which he deals with the distribution of malarial disease, the physical characteristics of Italy, the geology of the province of Rome, the relations of malaria to climate, meteorology, soil, topography of malarious districts and localities, the conditions affecting the prevalence of malaria, and the symptomatology, pathology, and pathological anatomy of malarious disease. The author then proceeds to consider the results of modern bacteriological researches, and it is to what he has to say in regard to these that most of his readers will no doubt be first tempted to turn. The author has spared no pains in collating and analysing his information, and he has conducted his investigations with seemingly great care and in a spirit of commendable independence. In his preface he gives an indication of the impression which the results of his extended inquiries have left on his mind. He has approached the subject and carefully studied the group of malarial diseases from their physical as well as their bacteriological side. As regards the Roman Campagna, he finds that the only condition constantly present is sudden and excessive change of temperature, most commonly due to great radiation, especially at sunset and sunrise. That the state of the atmosphere as to heat and moisture is intimately related to the distribution of the disease there seems to be no doubt. Whether these conditions are in themselves sufficient to produce malarial disease or only favour the growth of some pathogenic organism which, on entering the body, is capable of producing it is a further question.

At the close of Chapter XXII., on the Etiology of Malarial Fever, in which the author puts his readers in possession of the chief facts regarding the existence in the blood of malarial patients of an organism, he asks: "Is malaria the result of the operation of a pathogenic organism or is it caused by the action upon the human body of those peculiar climatic conditions which have been shown to prevail in all malarious countries in a greater or less degree?" To a consideration of the arguments for and against these two theories he then proceeds to address himself, with the result that, on the whole, he considers it more reasonable to suppose that our complicated organisation may break down under the strain of exceptional environing conditions than to assume the interference of a pathogenic organism to be necessary for the production of periodic fever.

Malarial disease has uncommonly little affinity with any other known disorders; it possesses features of an altogether different stamp, giving it a physiognomy of its own in that it is characterised by certain rhythmic changes of a thermometric kind, and once the human organism has been affected it acquires a sort of morbid habit which, as every one knows, may continue and be manifested after long periods of dormancy. This acquired tendency to disturbance of the thermotaxis of the body is, indeed, never altogether got rid of and may be easily re-awakened by causes of an apparently trivial kind. This is one of the recognised difficulties which has to be accounted for on the assumption that a pathogenic parasitic organism is the veritable cause of the disease. The author ably discusses this and other matters in the treatise under review. Our pages have of late contained so many interesting papers on malaria that there is no need for us now to enter into the subject, nor, indeed, would it be possible for us to do so adequately within any reasonable limits. There are numerous highly interesting points that would otherwise demand attention, and some of them have a practical value of their own. We should like, for instance, to have referred to the relations of recently disturbed or turned-up soil to malaria, to the movement of malaria by the wind within certain limits, to the distinctions between certain types of climatic fevers and those of a recognised malarial or intermittent character, and other matters.

Food in Health and Disease. By I. BURNEY YEO, M.D., F.R.C.P. Lond. New and revised edition. London: Cassell and Co., Limited. 1896. Price 10*s.* 6*d.*

THE need and utility of this compendious manual have been fully shown by the favour with which it has been received and the necessity that has been thus imposed of preparing a new edition. For to have carefully collated and sifted the enormous amount of information which has accumulated through the labours of physiologists and of students of dietetics was by itself a service of no mean order. Dr. Burney Yeo achieved this task with efficiency, so that the first part of his book, which takes the reader systematically through the subjects of the nutritional needs of the body, the nature and composition of foods, their relative value, digestibility, and preparation, the processes of digestion, and the question of dietaries in health as drawn up for communities, and as required for the individual at the different periods of life, teems with valuable information and an almost bewildering profusion of analyses and tables. He who not merely reads but who carefully studies this portion of the book will find himself possessed of information which cannot fail to be of service in his endeavour to apply the principles underlying it to the forming of dietaries for the sick. It is to this latter subject that the second half of the work is devoted. Here the author speaks with confidence from his own experience and many a practical hint will be gained from his pages. He does not hesitate to criticise the views of others, but he gives good reason for his dissent. The main divisions are diet in (1) acute disease and convalescence, (2) in gastro-intestinal affections, (3) in diabetes, (4) in albuminuria, (5) in gout and calculous disorders, (6) in obesity, (7) in anæmia and neurasthenia, (8) in rickets, scurvy, phthisis, and scrofula, (9) in circulatory and respiratory diseases, and (10) in rheumatism and skin diseases—all conditions in which a well-regulated dietary is of considerable importance. Some account is further given of the "diet-cures" practised on the Continent, and a final chapter deals with artificially digested foods. Three appendices are added, giving particulars of certain hospital dietaries, an account of milk sterilisation, and a useful list of select recipes for invalids. The book forms a good complement to the same writer's "Manual of Medical Treatment," and, like it, will be found to be a reliable and practical guide in what is often one of the most difficult departments of the management of the sick. At the same time, and Dr. Yeo himself frequently dwells on this point, the prescription of dietetic rules requires to be modified according to individual proclivities, so long as there is a general adhesion to the principles on which the diet is founded.

Upon these principles there is not much difference of opinion, but in details there is ample scope for variation, and it would be both useless and harmful to limit one's recommendations too strictly to one or other narrow *régime*. There are not many works which cover the ground here dealt with and afford so valuable an example of the application of the teaching of science to the daily needs of the organism in health and disease.

A Text-book of Nursing. By C. S. WEEKS-SHAW. Edited by WILLIAM J. RADFORD, M.R.C.S. Eng., L.R.C.P. Lond., Senior Resident Medical Officer, Poplar Hospital. With an Introduction by Sir DYCE DUCKWORTH, M.D. Edin., LL.D., Physician to St. Bartholomew's Hospital, Member of Council of the Queen's Jubilee Nursing Institute. London and New York: Edward Arnold. 1896. Price 3*s.* 6*d.*

THIS is said to be the recognised text-book of nursing in America, and in a preface to the English edition Sir Dyce Duckworth pronounces it to be one of the best of the books on nursing with which he is acquainted. After a careful perusal we are ready to endorse this good opinion, if not to give the book the first place among English works on the subject. Our own ideal of "The Text-book of Nursing" is one treating fully of nursing in all its branches—medical, surgical, obstetric, mental, military, and male nursing—and all such by-paths of nursing as, for example, massage. The book before us is more worthy of its comprehensive title than any we have hitherto met with, and the matter is well arranged and excellently presented.

The chapters on Surgical Nursing, the preparation of patients for operation, and the nurse's duty at the operating-table, are admirable, and those devoted to the elementary details of bed-making and changing, feeding, and the hourly care of the sick, are quite the best on the subject that we have seen. The information given is reliable, and the book generally free from errors, those that we have noticed being small matters only, with one exception; but the book is so good that it will be a pity if any inaccuracies are left in it. On page 59, in describing respiration, it is said: "Oxygen has a stronger affinity for blood than for nitrogen; so, when it is brought near, it leaves the air inspired to unite with the blood in the lungs." This sentence, apart from its very shaky grammar, entails the fundamental error that the oxygen in the air is in some state involving "affinity" to the nitrogen. As a matter of fact, the oxygen being free, there is no question of relative affinities at all. That this is a slip easily to be corrected is evident, because on the same page the state of the gases in the air is carefully and accurately described. On page 165, for antiseptic compresses to the skin before operation mercury solution 1 in 1000 is advised or *carbolic lotion 1 in 80*. Few English surgeons nowadays would be satisfied with a carbolic dressing of this strength, which would be practically valueless, especially as compared with a mercurial solution of 1 in 1000. In an otherwise correct receipt for making beef-tea the final instruction is "strain." This will remove almost all the actual food stuff from the beef-tea, leaving an extract void of albuminoids. Unless there are special reasons for a clear extract the lumps of meat only should be removed, leaving the "grounds" to be taken, as far as possible, by the patient.

In speaking of the use of ice for the relief of nausea and vomiting it is laid down that "small pieces swallowed whole are excellent to control nausea, but if retained in the mouth till melted do more harm than good." It may be presumptuous to question an American authority on the properties of ice-water, and the rule is given here as a matter without doubt; but it is a hard rule to reconcile with the frequent success of the method common in England of allaying sickness by the sucking of small pieces of ice. Perhaps the only serious error is the old mistake of advising that a bottle-fed infant should be given a mixture of one part cow's milk to two parts water. This, if carried out, will in nine cases out of ten produce a "wasting baby." Cow's milk contains about one-third too much casein as compared with human milk, the fats being about similar and the sugar a little deficient. The proper rule, therefore, is to add one part of water to two of cow's milk, adding sugar and possibly a little cream. Experience has absolutely proved the correctness of this view, and it is a point which should certainly be rectified in future editions.

Despite these small blemishes we can recommend the book to nurses and practitioners alike.

JOURNALS AND REVIEWS FOR DECEMBER.

The Practitioner.—There is an editorial note of somewhat mild appreciation of the late Sir Benjamin Ward Richardson. The original communications contain amongst other articles an interesting paper by Dr. Tirard upon Uræmic Dyspnœa, wherein he gives a timely warning against treating all forms of this complaint upon one principle. Mr. W. H. Bennett reports some cases of a Form of Pleuro-pneumonia presumably Gouty occurring after operation upon robust persons. Dr. Handfield-Jones has an interesting paper describing cases illustrative of the way in which cystic tumours of the ovary may take on a very rapid rate of growth. The medical hero for the month is Haller.

The Cornhill Magazine.—The best article is one upon duelling. Mr. Andrew Lang supplies through the medium of his beachcomber friend a really creepy story about a ghostly leper and there is a good tale entitled The Moon Stricken.

The Contemporary Review has a delightful article by Vernon Lee upon St. Jerome as a patron of leisure. Truly does the writer say: "Leisure is but a name for being active from an inner impulse instead of a necessity." Of course, the true holiday consists not in doing nothing, but in having nothing to do.

The Pall Mall Magazine.—The Christmas number of this journal contains somewhat inappropriately the final number of Mr. J. Holt Schooling's article, Hatches, Matches, and Despatches—i.e., Births, Marriages, and Deaths. Mr. Schooling possesses a surprising faculty for making statistics interesting, and his writings throw a glamour even over "age incidence," "mean death-rate," "corrected decennial averages," and other phrases of life and death registration. Expectation of life, suicide curves, the respective killing powers of various diseases, and other suitable subjects for Christmas are here set forth so that the non-mathematical mind can easily grasp them. The most deadly diseases in England are those of the respiratory system, and next come diseases of the nervous system, with, however, only about half the killing power of the preceding. The suicide curve is interesting, for it shows that for suicides, attempted and otherwise, June and July are far the worst months, having 197 and 200 calamities respectively set against them, while November, in which month, according to foreign opinion, we jump in crowds from Waterloo Bridge, comes out with only 93.

The monthly parts of the *Leisure Hour*, *Boy's Own Paper*, and *Girl's Own Paper* are full of seasonable reading, and the Christmas number of the latter magazine is an excellent one. *Sunday Hours* is a new Sunday magazine for young people after church and school hours. The subject matter is excellent.

Chapman's Magazine.—The Christmas number of this magazine has deserted the supernatural line it took last year, but there are some good stories, especially those by Clark Russell and C. Edwardes.

Cassell's Family Magazine.—The chief feature of the December number of this journal is an album of drawings by the late Fred Barnard illustrating sixteen characters from Dickens. There are some good papers, notably one upon Pirates.

DIARIES.

Letts's Diaries, published by CASSELL AND COMPANY, Limited, maintain their usual standard of excellence. For general office use nothing can surpass their "No. 1" Office Diary and Almanack with a page to each day and an alphabetical index. This diary is published in foolscap and large post quarto sizes. The "No. 8" is similarly arranged, but is smaller in size (large post octavo) and more suitable for private use. A slate tablet for memoranda is contained at the end of each. Letts's Medical Diary is a useful one for the general practitioner, including space for the entry of daily visits, accouchements, vaccinations, &c., and a variety of information especially useful to the medical man. It can be had either bound in cloth or leather.

Messrs. JOHN WRIGHT AND CO., Stone Bridge, Bristol (Simpkin, Marshall, Hamilton, Kent, and Co., Limited, London agents) send us two diaries which merit attention. The first, *The Improved Physician's, Surgeon's, and Consultant's Visiting List*, amongst other things, is designed to economise space and provide the greatest amount of accommodation. With this object in view, the book is so arranged that it is only necessary to write a patient's name once a month instead of once a week, and there is a consultant's record in which consulting practitioners may see at a glance the date and hour of their appointment together with the medical man in attendance. The second is issued for those who prefer the old form of notebook, and is arranged for eighty patients weekly on the left-hand pages, the right hand being left blank for prescriptions, notes, &c. The two forms are known as "B" and "C" respectively. They are both bound in leather, with pockets and patent stud fastenings, and form most convenient and handy diaries.

A convenient little book is the *Medical Diary and Visiting List for 1897*, issued by Messrs. OPPENHEIMER, SON, AND CO., Limited. Not too bulky to be comfortably contained in the breast pocket, it gives convenient space for a visiting list, midwifery and vaccination engagements, memoranda, addresses, &c., and there is a useful little indexing memo-tablet at the end of the book. The letterpress is a terse synopses of the remedial action and uses of drugs and modern preparations, with references and notes on emergencies.

Messrs. RUDALL, CARTE, AND CO. publish the *Professional Pocket-book and Engagement Diary*. Though primarily intended for the musical profession this diary, with its arrangements for daily and hourly engagements, would be exceedingly useful to any professional man.

A useful addition to the ordinary diary is the *Amicus Medici* prescription-form and letter-case published by Messrs. DANIEL MACFARLANE AND CO., Chambers-street, Edinburgh. The case is in leather, and contains pockets for letters, papers, and stamps. There is also a loop at the side to carry ink, pen, or pencil.

Messrs. HENDERSON AND BIRKETT of Gateshead send us a *Medical Visiting and Account Book*, foolscap size. It is ruled for remarks, name, address, disease, and a small square for each day of the month with a total column and number of folio. The book is a useful one, but an alphabetical index would be a decided improvement.

New Inventions.

NEW GYNÆCOLOGICAL APPLIANCES.

THE advantage of a thoroughly aseptic glass retractor which will lie flat on the abdominal wall and can be retained in position by a strap is obvious. Messrs. Arnold of West

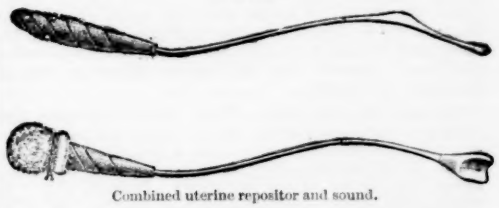
FIG. 1.

Self-retaining glass retractor with strap.

Smithfield, E.C., have succeeded in making for me glass retractors with perfectly smooth pothook ends (Fig. 1). They are curved so as to lie on the abdominal parietes. They are of different sizes and include any thickness of abdominal wall.

The same firm have contrived for me the instrument as shown in Fig. 2. It consists of an ivory cupped end to rest against the uterine fundus, a shaft of [illegible] and an aluminium handle, roughened and groove[illegible] a thin roll of moistened cotton-wool, with a notch at the end to which a roll of wool can be fastened. This elevator can be used in the genu-pectoral position with the left hand to raise the fundus, where the finger of the right

FIG. 2.



Combined uterine repositor and sound.

hand acts on the cervix in front, and in cases where the uterus has been raised and replaced it can be maintained in position by it while the pouch of Douglas is tamponed. In a case of retroversion in pregnancy the handle can be used as an elevator, with its aseptic covering of wool, through the rectum. It makes at the same time a very elegant sound through a screw connexion, with which the ivory cup can be replaced. H. MACNAUGHTON JONES, M.D. R.U.I.

CHOLERA-BELTED COMBINATIONS.

MR. F. PENBERTHY, of 390, Oxford-street, has submitted to us specimens of his ladies' cholera-belted combinations, an important feature of which is that the belt is woven in the garment. This, it is claimed, is a great improvement on the system of wearing a separate belt, as by this means all tucks and creases are avoided and greater comfort is assured. The

combinations are to be had in pure unshrinkable wool, and also in white or natural colour with pink, self, or blue belts, in the usual sizes, and with long or half-sleeves. Mr. Penberthy's patent will be accorded a hearty welcome by those who find the necessity of wearing a belt.

THE DUPLEX BOILERETTE.

THE name "Boilerette" is somewhat of a misnomer, for the excellent little saucepan which we illustrate below is a great deal more necessary for the process of stewing than that of boiling. The two terms are, however, regarded as almost synonymous in the lay mind, while in reality the processes are quite opposite. In boiling, water is used as a medium for conveying heat to the substance boiled; while in stewing, water is not only used as a medium for conveying heat but also as a solvent. Stewing is best performed in a double saucepan, which forms in reality a water bath. Such a double vessel is also *par excellence* the saucepan for boiling milk and in pre-

paring the various farinaceous substances used in making milk puddings. Many invalid dishes are also best prepared in this form of utensil, which is indispensable for dry steaming. We therefore welcome this saucepan, which is manufactured and sold at the Duplex Works, North Newington, Banbury. In construction it is similar to the well-known carpenter's glue-pot, but the inner vessel is fixed to the outer one, the risk of explosion being guarded against by the insertion of a small valve, the same aperture being used, on removal of the valve-cap, for filling the outer vessel.

THE ULSTER MEDICAL SOCIETY.—At the monthly meeting, held on Dec. 3rd, Dr. H. O'Neill read notes of two cases of Litholapaxy and showed the Calculi removed; Dr. J. R. Davison showed a case of Erythema Migrans Linguæ; Dr. T. Sinclair Kirk showed a case of Pressure Paraplegia Cured by Operation; Dr. Mitchell showed a case of Tuberculous Disease of the Knee after Eighteen Months' Treatment with Thomas's Splint, and read notes of a case of Tracheotomy for Diphtheria after Antitoxin Treatment; Dr. Cecil Shaw showed a case of Bell's Paralysis complicating Middle-ear Disease; and Dr. Calwell showed a case of Erythema Circinatum.

ROYAL INSTITUTION.—The following are the lecture arrangements before Easter:—Professor Sylvanus P. Thompson, six lectures (adapted to a juvenile auditory) on Light, Visible and Invisible; Professor Augustus D. Waller, twelve lectures on Animal Electricity; Professor Henry A. Miers, three lectures on Some Secrets of Crystals; Dr. J. W. Gregory, three lectures on the Problems of Arctic Geology; Professor Percy Gardner, three lectures on Greek History and Extant Monuments; Professor W. Boyd Dawkins, three lectures on the Relation of Geology to History; Mr. Carl Armbruster, three lectures on Neglected Italian and French Composers; Mr. Walter Frewen Lord, three lectures on the Growth of the Mediterranean Route to the East; and the Right Hon. Lord Rayleigh, six lectures on Electricity and Electrical Vibrations. The Friday evening meetings will begin on Jan. 22nd, when a discourse will be given by Professor Dewar. His Royal Highness the Prince of Wales has consented to open on Tuesday afternoon, Dec. 22nd, 1896, the Davy Faraday Research Laboratory of the Royal Institution, founded by Dr. Ludwig Mond, F.R.S., as a memorial of Davy and Faraday. The ceremony will take place in the theatre of the Royal Institution, where, by desire of His Royal Highness, Professor Dewar will after the opening ceremony show experiments illustrative of the use of liquid air in scientific research.

THOMAS WAKLEY,

THE FOUNDER OF "THE LANCET."

A BIOGRAPHY.[1]

CHAPTER XLVIII.

*The Poor Law Amendment Act of 1834.—Wakley's Hatred of it, and the Reasons.—The Treatment of the Sick and Poor in Workhouses.—Wakley threatens an Immediate Enquiry.—*THE LANCET *Enquiry undertaken Three Years after Wakley's Death.*

ALLUSION was briefly made in dealing with Wakley's parliamentary career to his extreme dislike of the "New Poor-Law" or the Poor-law Amendment Act of 1834. Until the year 1834 the Poor-laws of England had been mainly framed against vagrancy, "sturdy" mendicancy, and "valiant" pauperism. The first variation from these generally repressive measures is to be found in a compulsory levy in support of the sick and aged made in different parishes early in Queen Elizabeth's reign, the compulsion, partly legal and partly spiritual, being supplied by the bishops and the justices of the peace. Later in the reign of the same monarch came a celebrated statute (43, Eliz., c. 2) taxing every parish for the support of its poor in a defined manner and with drastic authority for giving effect to the provisions. To all intents and purposes this was the law to the amendment of which Wakley so strongly objected, for the system inaugurated by Queen Elizabeth's Act remained in operation for two hundred and thirty-three years or between 1601 and 1834 without material modification. But a laxity towards the able-bodied loafer gradually crept in. As a result the condition of the pauper became in many places so comfortable and so superior to that of the self-supporting labourer that a large proportion of the inhabitants of a village would demand State aid. The evidences of serious moral deterioration of the lower orders soon became clear, and in 1832 a Commission of Inquiry was appointed to report upon the whole subject. The great source of abuse was then found to be the out-door relief afforded to the able-bodied poor or their families and given in kind or money. This form of charity was made the subject of all sorts of fraudulent claims. In some villages the eleemosynary assistance took the form of money in aid of wages, and in some the pauper obtained his house rent, or part of it, free, and those who were not ashamed to become pauper members of the community enjoyed a prosperity that was denied to their independent fellows. The in-door relief as furnished by the workhouse of the time was also found by the Commission of Inquiry to be badly administered and expensive. Upon such a report legislative interference was clearly bound to follow, yet the opposition to amendment was very strong—strong on the part of the pauper with whom the world went very well under a system by which his scanty wages were supplemented by comparatively large and unearned additions, strong on the part of the employers of pauper labour, and strong on the part of the numerous owners of cottages or apartments inhabited by the poor, the rents being paid by the community. But the

[1] Chapters I., II., III., IV., V., VI., VII., VIII., IX., X., XI., XII., XIII., XIV., XV., XVI., XVII., XVIII., XIX., XX., XXI., XXII., XXIII., XXIV., XXV., XXVI., XXVII., XXVIII., XXIX., XXX., XXXI., XXXII., XXXIII., XXXIV., XXXV., XXXVI., XXXVII., XXXVIII., XXXIX., XL., XLI., XLII., XLIII., XLIV., XLV., XLVI., and XLVII. were published in THE LANCET, Jan. 4th, 11th, 18th, and 25th, Feb. 1st, 8th, 15th, 22nd, and 29th, March 7th, 14th, 21st, and 28th, April 4th, 11th, 18th, and 25th, May 2nd, 16th, 23rd, and 30th, June 6th, 13th, 20th, and 27th, July 4th, 11th, 18th, and 25th, Aug. 1st, 8th, 15th, 22nd, and 29th, Sept. 12th, 19th, and 26th, Oct. 3rd, 10th, 17th, 24th, and 31st, Nov. 7th, 14th, 21st, and 28th, and Dec. 5th respectively.

Commission of Enquiry had done more than expose a bad state of affairs. It had proved that progress from year to year was taking place towards a worse state. It had proved that a pauperised peasantry meant a vicious peasantry, and fear prevailed where reason had not been so effective and procured the passage of the Act of 1834 (41 s., Will. IV., c. 78). The main directions in which this Act altered the existing state of affairs in England—the only division of the kingdom contemplated in the Act—were two. Firstly, out-door relief except as medical attendance was abolished. All relief for the future was to be given in the workhouse. Secondly, a uniform method of administration was established for all England, so that there should be no inducement for paupers to wander from rigorous to more kindly districts. To this end a central board was appointed to regulate the working of the Act, to make it symmetrical, and decide in what districts and at what time out-door relief was to cease. Permanent officials were appointed to work under this board, this being the only way of securing good administration, for the framers of the Act clearly saw that many things would have to be done by the officials that would be so unpopular in the different localities that the tenure of their appointments must not be determined by annual election or popular vote. The central board was empowered to cause any number of parishes which they might think convenient to be incorporated for the purpose of workhouse management. Such "Unions," as they were and are termed, swept away numberless old landmarks in the country, but were necessary to the proper administration of the Act. In fact, within the four years succeeding 1834 328 unions had workhouses completed and in operation, each being provided with auditor, chaplain, medical officer, relieving officer, master and matron of the workhouse, schoolmaster, schoolmistress, and porter. The Act met with the greatest possible practical success. An enormous number of paupers became self-respecting and self-supporting labourers, many parishes were relieved of ruinous rates, and for numerous though roundabout reasons public morality improved. What, then, had Wakley to object to? For that he did object to the new law most vigorously both the leading articles in THE LANCET and his speeches in Parliament go to prove.

The whole of Wakley's attitude on the Poor-law question shows remarkable intuition and good fortune. The intuition was displayed in his immediate appreciation of the fact that numberless persons would be tried very severely by the working of the Act, in spite of the great success with which its operations were attended at the outset. His good fortune was that while his early estimate of the new piece of legislation was sentimental and inspired by bad information, he later found cause for most serious criticism and was able to remain a consistent foe to certain portions of the Act while acquiescing in the benevolence of other portions. There is no doubt that many poor of many districts found the working of the Poor-law Amendment Act harsh. The workhouse test of poverty was very drastic. The new poorhouses were often far from the parish where the pauper lived, although built as much as possible in the centre of the union. Moreover, to people accustomed to unlimited assistance from wealthy neighbours while living in a rate-paid tenement among their friends it was intolerable that before they could obtain charity they should be forced to go afield at all. They considered that to do so was to surrender their whole independence, and submit to a discipline and rigour that savoured of prison routine.

At first Wakley took entirely and uncompromisingly the part of the outraged poor as he conceived them to be. He attacked the Act on every conceivable point and spoke of it with a scorn and fury that had no bounds. Workhouse relief was always represented as a particularly cruel form of imprisonment; to deny the poor indiscriminate alms at their own homes was represented not as a simple method of protecting the industrious from the lazy and the community from *chantage* but as a deliberate persecution of the poor by the rich; the necessary appointment of a central board of administration became "the payment of a pack of lazy, underworked, overfed officials, from the public purse"; there was nothing whatever about the Act that was not horrible, vicious, inept, and malignant. Much of this rather loose and badly distributed abuse arose from two causes. The first was Wakley's real sympathy with the oppressed, and he conceived, as Dickens did, that the poor were oppressed under the new Act. Dickens was never able to get the idea out of his head, for exactly thirty years after the Act came into force he wrote as follows[2]:—

"My Lords, gentlemen, and honourable boards, when you in the course of your dust-shovelling and cinder-raking have piled up a mountain of pretentious failure you must off with your honourable coats for the removal of it. ..... For when we have got things to the pass that with an enormous treasure at our disposal to relieve the poor the best of the poor detest our mercies, hide their heads from us, and shame us by starving to death in the midst of us, it is a pass impossible of prosperity, impossible of continuance. ..... This boastful handiwork of ours which fails in its terrors for the professional pauper, the sturdy breaker of windows, and the rampant tearer of clothes, strikes with a cruel and a wicked stab at the stricken sufferer, and is a horror to the deserving and unfortunate."

This apostrophe of the Poor Law Commissioners upon the death of Betty Higden depicts precisely Wakley's original views of the Poor Law Amendment Act. They did honour to his heart rather than to his head, and were due, as has been said, to two causes. The first was sentiment, the second was his impression that the Act proposed to deal unfairly with the medical profession. Believing this, he could find no stick too heavy with which to beat it, and his desire to champion the cause of the poor was eternally kept alive by the feeling that all opposition to the Act meant assertion of the rights of the medical man. Here Wakley, with his unrivalled knowledge of the ins-and-outs of the medical profession gathered from ten years' editorship of THE LANCET, was able to put his finger at once upon a blemish in the Act. There was no proper provision for the medical attendance that was so freely promised by the Act. The Act was one of economy. It was one designed to make the able-bodied work, to make those in full wages save against a rainy day, and to make the well-paid of a family help the ill-paid. In no case were those in good health to be assisted by the State *save as a last resort*. As a result the medical man became a very important factor in the working of the Act. It rested upon his fiat largely whether an individual should be helped or should not, and although the Act was one of economy the medical man must be paid properly. But this was not generally done. The care of the sick pauper was thrown upon him in many places in return for a pittance. When this became known to Wakley, as it did very soon from his editorial letter-bag, his indignation at the regulations concerning the medical care of the sick poor spread to the whole Act, and his early denunciations of its working must be taken to represent his particular resentment of the sweating of medical men as much as his general sympathy with the poor and down-trodden.

When Wakley began to concentrate his attention upon the treatment meted out to the Poor-law medical officer he was close on the heels of the great reproach under which the working of the new Act lay—namely, that its provision for the sick poor was totally inadequate and conceived in an ignorant and barbarous spirit. By 1840 his ideas had become a little less sweeping. The humanitarianism of his

[2] Our Mutual Friend, Book iii., Chapter viii.

views was not quite so wholesale, and the existence of a real scandal in the working of the Act was thereby made apparent. This scandal was the fact that the workhouses were badly built, badly administered, death-traps to those admitted, and foci of disease to those without.

"We know of no fact in statistical science," wrote Wakley in April, 1841, "so firmly established as that of the excessive mortality in the present workhouses. The Poor-law Commissioners themselves will admit that a *primâ-facie* case has been made out. According to the returns of their own officers it appears that out of 12,318 poor people in workhouses *two thousand five hundred and fifty-two* perished in one year! ..... It is not, however, our duty, or the duty of those who support the system of out-door relief, to prove that the workhouses increase the mortality of the poor. The *onus probandi* lies with the apostles of the new system. They are bound to prove that the workhouses do *not* increase the mortality and sufferings of the destitute. But this they have never attempted. The Commissioners have, on the contrary, circumspectly withheld the most decisive information and have kept the Government, the House of Commons, and the public in the dark. They have never even stated in their reports the number of deaths in the workhouses under their administration. ..... The question is simply this: If the feelings of the poor were consulted, and they received an equal amount of relief at their own homes, would as many die as now perish in the workhouses? Do 2552 in 12,313 paupers perish annually out of doors? The Poor-law Commissioners might have furnished *data* for a direct answer to the question. They are fond of experiments. Why did they not give out-door relief exclusively in a certain number of unions and count the number of deaths among the recipients? There would have been nothing inhumane or revolting in *this* experiment. In the absence of the direct observations which should have been furnished to the Secretary of State and to Parliament we submit the following facts to public attention:—In 1837 2552 paupers *died* out of 12,313 in workhouses; 382 persons *died* out of 12,313 persons in the district of St. Giles's, London. How is this enormous difference to be accounted for? The *age* of the inmates will account for a part of the difference. The proportion of *old persons* is greater in the workhouses than in the unhealthy district of the metropolis. But the mortality of persons in England above the age of sixty is 7½ per cent., according to Mr. Edmonds, and if none of the 12,313 inmates of workhouses had been under sixty years of age the deaths should not have exceeded 936!.....

"Are the paupers sick at the time of their admission into the destructive workhouses. A certain number are admitted in a state of sickness, but the proportion is not much greater than in the general population. About 6 in 100 are constantly sick in St. Giles's district, and we have deduced the following results from a table published by the Poor-law Commissioners in their last report (p. 10), professing to show the number of paupers relieved in 178 unions during the quarters ending Christmas, 1838, and Christmas, 1839. According to this table, of 67,497 persons who received in-door relief 4117 persons were relieved '*on account of sickness or accident.*' Only 6 in 100 received into the workhouses were relieved 'on account of sickness or accident.' The diseases which prove so fatal, therefore, assail the poor after their entrance into these ANTE CHAMBERS OF THE GRAVE.

"The number constantly sick *in the 110 workhouses* was 1407 in 12,713, or nearly 11 per cent.; the number stated to be *infirm* was 36 per cent.; but this evidently included the infirm from *age* as well as the infirm from lameness, blindness, and chronic diseases of various kinds. The mortality among the infirm pensioners on the list of the East India Company's labourers in London was 16 per cent, annually (Macullock's Statistics of the British Empire, art.: Vital Statistics); it is at least as high among infirm out-door paupers in the metropolis. But the mortality of young able-bodied adults and the aged or infirm taken together was 29 per cent. in the ten metropolitan workhouses!"

As will be gathered from these quoted words, Wakley did not abandon his early position. He only modified it. He ceased to labour the arguments in favour of out-door relief, such as they might be, though he continued to regard the workhouse test of poverty as cruel and faulty. But he reserved his chief energies for denunciation of the workhouse treatment of the sick. To this subject during the last fifteen years of his life he constantly recurred. He did not lose sight of other points in Poor-law administration that fell within the scope of his work as Member of Parliament, Coroner, or Editor. On the contrary, he spoke several times in the House on the causes of excessive mortality in rural districts, on the treatment of the insane pauper by the State, and on the scanty remuneration of the Poor-law medical officer; while he proposed a scheme for pensioning that officer upon his superannuation not unlike the one that has come into force under the Act of this year. But in the front of all his interest in Poor-law matters he ever placed the urgent necessity that existed for improving the accommodation of the sick in workhouses, asserting and re-asserting that here at any rate existed a blot upon the Act which its most ardent admirers could not conceal, and which the most ingenious economists could not excuse. He never however, took any more practical steps towards exposing the evils of whose existence he was so certain. He threatened more than once, as in the words quoted above, to make the matter one for immediate inquiry; but for this reason or that the opportunity never arrived. Probably he trusted a little too much to the power of his pen and hoped for a bloodless revolution—a reform that should follow upon denunciation. But three years after his death his words bore splendid fruit. His successor as director of the fortunes of THE LANCET, Dr. James Wakley, had always considered that to make a complete investigation into the treatment of the sick poor in workhouses had been confided to him as an editorial legacy from his father. When, therefore, two tragedies in rapid succession—one occurring in December, 1864, and the other early in 1865—called the attention of the public to this very topic in an urgent and even heartrending manner, Dr. James Wakley seized on the psychological moment and instituted an inquiry. He appointed as Commissioners the late Dr. Francis Edmund Anstie, afterwards Editor of *The Practitioner*, the late Dr. Carr of Greenwich, and Mr. Ernest Hart, and published in THE LANCET the ungarbled results of these investigations. Dr. Anstie took the largest part in examining the London Infirmaries, and to his able pen was due the general summary of results and recommendations which prefaced the reports of the particular enquiries of the Commission. To tell what followed would be to go distinctly beyond the scope of this biography, but it is in no way far-fetched to claim for Wakley the credit of having thoroughly prepared both the public and the medical profession for terrible revelations. He had promised that THE LANCET would make these revelations, and the son who succeeded him kept the father's word.

(To be continued.)

THE ALVARENGA PRIZE OF THE COLLEGE OF PHYSICIANS OF PHILADELPHIA.—The College of Physicians of Philadelphia announces that the next award of the Alvarenga Prize, being the income for one year of the bequest of the late Señor Alvarenga, and amounting to about one hundred and eighty dollars, will be made on July 14th, 1897, provided that an essay deemed by the Committee of Award to be worthy of the prize shall have been offered. Essays intended for competition may be upon any subject in medicine, but cannot have been published, and must be received by the secretary of the College on or before May 1st, 1897. Each essay must be sent without signature, but must be plainly marked with a motto, and be accompanied by a sealed envelope having on its outside the motto of the paper and within the name and address of the author. It is a condition of competition that the successful essay or a copy of it shall remain in possession of the College; other essays will be returned upon application within three months after the award. The Alvarenga Prize for 1896 was not awarded.

THE LANCET.

LONDON: SATURDAY, DECEMBER 12, 1896.

THERE are few diseases in which the presence of some unfailing pathognomonic sign would be more useful than in typhoid fever. The masked and insidious character of its onset renders its detection in an early stage often most problematical, and even when more advanced the Protean forms which it may assume and the close resemblance which it may bear to many another pyrexial malady not seldom leave the clinical observer to base his diagnosis upon the method of "exclusion." For this reason alone, quite apart from its intrinsic value as an important piece of scientific research, the subject recently detailed in our columns by M. WIDAL[1] and Dr. A. S. GRÜNBAUM,[2] and described in our present and last issues by Professor DELÉPINE[3] and Dr. E. J. SIDEBOTHAM,[4] is one of profound interest. It will be seen from the letter of our Montreal correspondent that already advantage has been taken of the apparent simplicity of this method of "serodiagnosis" to enlist it in the service of the public health, and although we cannot help feeling that this application is somewhat premature, it says not a little for the ease and accuracy of the method that the trials conducted on so wide a scale, notwithstanding the fallacies which must inevitably creep in, should have been apparently so successful, Professor DELÉPINE and Dr. SIDEBOTHAM have chosen a more excellent way for testing the value of the method, and the results which they record deserve close attention.

The test in question is another instance of the practical aid which can be given to medicine by bacteriological research. Just as in the antitoxin treatment our resources in therapeutics were increased, so here an application of studies not widely different from those which led to the use of antitoxin promise valuable aid in clinical diagnosis. The test is, as Professor DELÉPINE points out, the outcome of various lines of research leading up to the observation of the effect produced on the living microbe by its contact with the serum of the blood of an animal which had been rendered immune to the infection caused by the microbe in question. The scientific inquiries by PFEIFFER, GRUBER, DURHAM, and others named by Professor DELÉPINE were utilised by M. WIDAL when he, a few months since, introduced the plan of performing a rapid diagnostic test of typhoid fever. For it was found that the property which was possessed by the blood of immunised animals of producing a marked change in the cultures of typhoid bacilli was similarly vested in the blood of persons suffering from the disease. In each case the addition of the serum to a peptone broth culture of the bacillus caused the microbes to cease their movements and to agglomerate in "clumps," which, being precipitated to the bottom of the culture fluid, leave the latter clear and free from the turbidity exhibited when the organisms are in active growth. It would seem as if the serum had become so altered from the normal as to exert a toxic effect upon the bacilli, for the interesting observation was made by Professor DELÉPINE and Dr. SIDEBOTHAM that serum taken early in the disease seemed to exert more a paralysing than a devitalising action, at any rate they observed in such circumstances the bacilli to regain their motility after a time. This discovery has been tested frequently, so that it may be taken as proved that no other serum than that of immunised animals or of typhoid fever patients can give this result. In the application of it to clinical purposes it has the great advantage that it can be applied with a minimal quantity of blood and but a drop of the culture. It can be just as clearly demonstrated on a microscopic slide as in a test tube. It can also be obtained with dried blood instead of the fluid serum. Naturally to ensure success the method, simple as it is, requires the observation of precautions and the exercise of due care in manipulation; and we agree with Professor DELÉPINE in thinking that so delicate a test can hardly be reliably used in the ordinary routine of bedside examination, for the very value of the test depends as much on its negative results as on its positive, and any slight error in sterilisation or in the mode of preparation of the blood and the bacillary culture may vitiate the result. However, as no clinical institution and no hygienic institute should now-a-days be destitute of a bacteriological laboratory and a skilled bacteriologist the application of the test ought not to be a difficult matter anywhere.

The tables published by Professor DELÉPINE and Dr. SIDEBOTHAM afford strong testimony to the value of the test. They appear to show conclusively that the reaction is limited to the blood of typhoid fever cases. It is instructive to note that, even in such cases, no certain results were obtained before the ninth day of the fever, and that the most definite were from blood taken in the third week. Doubtless as time goes on much that is of importance will be revealed by similar investigations, which will not only bear on the immediate question of diagnosis, but throw light upon other problems of infectivity and the part played by bacilli in its production. As a pathognomonic test of typhoid fever such a reaction may rank in diagnostic value with the characteristic cutaneous rash, for if confirmed it should be as constant a feature of the disease as the ulceration of a PEYER'S patch. Certainly such a test would outweigh the urinary reaction associated with the name of EHRLICH, since this is not pathognomonic, although almost constantly to be obtained at a certain period of the disease.

WE need not apologise to our readers for calling their attention to the article on the Army Medical Department in *Blackwood's Magazine* for the present month. It is written in a generous and sympathetic spirit and cannot fail to be gratifying to army medical officers. The author, who is evidently well acquainted with his subject, considers the present a very appropriate time for stating the case and pleading the cause of the medical service, seeing that the present condition of that service must be a matter of grave concern to all who are interested in the well-being of the army. He then proceeds to give an interesting and instructive

[1] THE LANCET, Nov. 14th, 1896.
[2] THE LANCET, Sept. 19th and Nov. 28th, 1896.
[3] THE LANCET, Dec. 5th, and p. 1665 of present issue.
[4] Vide p. 1665.

historical sketch of the connexion of the medical profession with the army. He starts from the earliest times, when little or no care was taken of the sick and wounded soldier or when surgery was so rude and barbarous an art that it would have been better to have left nature to do her best or worst than to have relegated anyone to the rude appliances and tender mercies of the surgeons of that day; and he carries his account up to the present time, when all that organised skill and the application of refined methods of antiseptic surgery can bring to the aid and succour of the wounded is accomplished in the modern warfare of the day. The difference between the two periods is enormous. That which separates the bow and arrow period from the rifled weapons and arms of precision of the present day is not greater; for the advances in field hospital organisation and administration, in the transport, care, and cure of the wounded, have been immense. To name only one striking change—the infective wound diseases, which were the scourge of war hospitals in the past, have been practically abolished.

It is of importance that information regarding the medical service and the duties of medical officers should be widely known, for it is information which concerns everybody. There are few families, rich or poor, that have not some one or more of their number connected with the army. The writer of the appreciative article under review describes the progressive changes that have taken place in the British medical service, and points to the work done by army surgeons, to the risk they run on the field of battle, referring in illustration to several instances of an exceptionally brave and devoted kind which have always been cropping up from time to time in the history of the medical department. Nor does the army surgeon share the risks of war equally with other officers, but he has to incur risks of his own and peculiar to his calling which other officers are not called upon to incur. These, as an old army surgeon wrote long ago, are not encountered to destroy a foe but to save a friend, and they do not stand prominent in the public eye and are not attended with the glory attached to martial deeds.

The writer of the article in *Blackwood* asks that army medical officers should be everywhere recognised as soldiers, that honours and distinctions should be accorded to them in the same proportion as to other branches of the service, that the Medical Staff and Medical Staff Corps should be welded into one under some such designation as the "Royal Corps of Surgeons," and that it should occupy a position in all respects worthy of the department's great services in the past and of its heavy responsibilities in the present, which, it may be added, must prove of ever-increasing importance in the future. For this we have always contended. There are other matters also—grievances under which the medical service is labouring that press for removal. Medical officers in India must be accorded the pay of their rank; the long foreign and short periods of home service and the many harassing moves to which they are subjected whilst at home require to be altered; and opportunities should be given to medical officers for professional study after periods of service abroad. The more ambitious of their number might have opportunities afforded them—analogous to those held out by the Staff College to combatant officers of the army—for specially qualifying or distinguishing themselves in their own line of life.

WE congratulate the Neurological Society of London on the performance of a very graceful act in instituting an annual lecture bearing the name of the distinguished physician who was so closely identified with the origin of the society and who was its first President. It may perhaps be said that the work of Dr. HUGHLINGS JACKSON needed no such periodic reminder, that it will never cease to be memorable on account of the permeating influence it has had on neurological study, not only in this country but also on the Continent and in America, and that this fact in itself constitutes a *monumentum ære perennius*. And while all this is true and nothing can enhance the reputation or render more imperishable the fame of him in whose honour the lecture has been instituted, yet the inauguration of such a lectureship at this time serves to mark while he is still among us, engaged in the active work of our profession and keenly alive to its varied and manifold interests, the high appreciation and devoted regard which are entertained for one who has been in the front rank of neurologists for thirty years and whose work and influence have been at once an example to all and an inspiration to not a few. Such an act on the part of the Neurological Society is but the outward expression of those feelings of affection, regard, and veneration which its members entertain for him after whom the lecture is named and in whose honour it has been instituted, and it must be no little gratification to them to know that Dr. HUGHLINGS JACKSON himself has consented to give the first Hughlings Jackson lecture.

It is not easy for anyone of the present generation to appreciate the condition of neurology when Dr. HUGHLINGS JACKSON began his work. The ophthalmoscope and laryngoscope were practically unknown; the existence and therefore the significance of various morbid states of special organs were unrecognised; the brain itself was regarded as a more or less homogeneous organ. The part which Dr. HUGHLINGS JACKSON had in unfolding and explaining the various medical relations of optic neuritis (to mention only one important piece of work) is apt to be lost sight of in the contemplation of what was probably his much greater work in reference to localisation of brain function. The patient and prolonged clinical observations and the careful pathological scrutiny by which he was able to show that certain definite areas of the brain were related to the functions of certain parts of the body constitute a fascinating chapter in medical discovery, for by means of them were laid the foundations of cerebral localisation, and what was practically a new science was called into existence.

The discovery and description of the form of epilepsy now so widely recognised as "Jacksonian," were, as it were, a by-product of this research, and it is needless to do more than refer to the experimental work of Dr. FERRIER and others, and to the marvellous developments of cerebral surgery in comparatively recent times, which were the natural sequence of Dr. HUGHLINGS JACKSON'S work. But Dr. HUGHLINGS JACKSON was probably a philosopher before he was a physician, and his firm grasp of principles and his wide range

of mental vision have enabled him to regard physiological questions, especially those connected with the functions of the nervous system, in a manner peculiarly his own. And yet with all his wealth of knowledge and philosophical insight he has always shown himself to be possessed of the true humility and gentleness of genius. It must be a great satisfaction to the members of the Neurological Society to feel sure that nothing could be more welcome to him whom they desire to honour than the assurance which their action conveys that his work is appreciated by those whose opinion he trusts and values and by whom he himself is held in the highest esteem and honour.

THE General Board of Studies, which was supposed to be reconsidering the stipend to be attached to the professorship held by the late Sir GEORGE M. HUMPHRY, has issued a report to the Senate which has given rise to an animated controversy. While affecting to retain its former opinion as to the paramount importance of maintaining and endowing the chair the Board makes a proposal which many of those interested regard as practically suppressing the office for an indefinite time. From the official account of the discussion in the *Cambridge University Reporter* for Dec. 8th it appears that Sir JOSEPH LISTER was privately invited to let himself be put in nomination for the professorship, and that for easily understood reasons he declined. A letter from him was then received by one of the professors and communicated to the Board to the effect that, in his opinion, the absence of an official connexion with the hospital would preclude any "really able first-class London man" from accepting the appointment. A small majority of the Board thereupon resolved that the election should be deferred for a year in order that measures should be taken for bringing about such a connexion. The Vice-Chancellor, who is chairman of the Board, dissented from this conclusion as neither necessary nor desirable. He had himself but a few months ago conducted to a satisfactory conclusion a long negotiation with the hospital authorities whereby the Professors of Physic and Surgery were appointed clinical lecturers and empowered to use the cases in hospital in illustration of their teaching. The constitution of the hospital, which is defined by an Act of Parliament, precluded the possibility of appointing any person *ex-officio* to treat the patients, and there was no vacancy on the staff to which the professors could be elected in the ordinary way and on their merits.

Several of the University governors of Addenbrooke's Hospital urged that it was hopeless to attempt to modify this Act of Parliament within a year, that the University had no *locus standi* to promote such a Bill, and that the governors themselves would strongly resent the re-opening of a question that was so recently settled to the apparent satisfaction of all parties. Further suspensions of the professorship would be necessary while the suggested agitation dragged on, and meanwhile no provision was made for the carrying on of the department or the control of the surgical examinations. Experienced members of the teaching staff pointed out that a division of labour in regard to surgical instruction was practicable. The Professor, if appointed now, would be able, as the late Sir GEORGE HUMPHRY did, to devote himself to the principles of surgery, surgical anatomy, and applied pathology and to the direction of the examinations. The surgeons at the hospital, all of them members of the University, could, as they had always done, instruct the students in clinical and practical surgery A similar arrangement had worked satisfactorily during the years when Sir GEORGE PAGET and Sir GEORGE HUMPHRY were not on the acting staff of Addenbrooke's Hospital, and it might be maintained for the present until a vacancy occurred in the normal course. Certain non-medical members of the minority on the Board protested that the drastic proposal to suspend the professorship should not have been put forward without consultation with the Special Board for Medicine and the Electoral Board of the Chair, bodies which by their constitution were qualified to give expert advice to the Senate on the subject.

We do not gather from the report of the discussion that any clear answer was made to the objections advanced, but meanwhile the Board adhere to their new policy, and by the constitution of the University the *nodus* can only be loosed by a vote of the graduates. Cross issues have been raised in reference to a proposal to use a considerable portion of the available funds for endowing a professorship of Logic, in precedence to the professorship of Surgery, and meanwhile a multitude of "fly-sheets" are in circulation among the residents appealing for *placets* or *non placets*, according to the views of the writers. At the time of writing the "fly-sheets" have nearly all been hostile to the recommendation of the Board, but it is impossible to predict what number of votes its friends can command.

THE elaborate and eminently unbiased report upon the subject of Oyster Culture in relation to Disease which has been recently issued from the Local Government Board, and which was referred to in our columns last week, raises the important question as to what steps are to be taken to remedy the dangerous state of affairs which was discovered by Dr. BULSTRODE in certain localities around our littoral. That some control over oyster layings is necessary in the near future is obvious, and it is to be hoped that the oyster merchants themselves will forthwith recognise that it is in their true interests to at once remove their oysters from dangerous situations; indeed, we already hear of improvements having been voluntarily effected in some parts of Essex, and we trust that all who have the interests of the oyster industry at heart will follow the example thus set. It will, however, be necessary that fresh legislative measures shall render the laying down of oysters in dangerous localities impossible in the future, and also that any such legislation should, as Dr. BULSTRODE has pointed out, be retrospective in effect. The remedy would appear to be of a comparatively simple character, and to consist in conferring upon some authority or authorities, having expert sanitary advice at their disposal, the power of vetoing the laying down of oysters, and especially their dredging up for immediat marketable purposes, over undesirable areas. It would serve to assist the carrying out of these provisions if it were enacted that all oyster layings, fattening beds, and storage ponds, should be registered and that registration should only be permitted with the approval of the authority or authorities above referred to. Section 4 of

the Infectious Disease (Prevention) Act, 1890, which confers upon sanitary authorities the power of prohibiting the supply of milk when such milk is causing, or likely to cause, disease, might also, with modification, be made applicable to oysters.

Some such precautions as these would, perhaps, suffice for a protection of the public health in so far as home produce and relaid foreign produce is concerned, but on considering the directly imported foreign produce we are at once brought face to face with the problem which besets a large part of our national food-supply other than oysters, and its solution is exceedingly difficult. It would be unfair and obviously illogical to saddle our home oyster industry with restrictions and to still allow foreign produce to be directly imported with no restrictions whatever. It must be remembered, however, that regulations such as those proposed would ultimately have the effect of removing both the native produce of Great Britain, and also relaid foreign oysters, from the suspicion which is at the present time attached to them, and that in this sense the home oyster growers and planters should hail the proposal with satisfaction. It is probable also that even in regard to directly imported oysters a satisfactory arrangement could be arrived at by means of which the oyster-eating public of this country would be satisfied of the wholesomeness of foreign produce. For instance, certificates from duly accredited and properly qualified public officials in the respective countries that the oyster beds in those countries were free from the risks of dangerous pollution might serve to remove the oysters from reasonable suspicion. Under existing circumstances there is certainly need for all produce sold to be guaranteed to the consumer as coming from the professed source and that all directly imported foreign produce should be sold and guaranteed as such. There would, too, appear to be a necessity for arriving at some time limit in the matter of relaid oysters, and having regard to the results of the experiments made by Dr. KLEIN, as also by other bacteriologists, it might be desirable that no oysters should be sold as "relaid" until they have been from a month to six weeks in approved layings in these islands.

It will doubtless be contended that these restrictions would be from time to time evaded, but obviously a similar objection might be urged against all restrictions in which human beings, as at present morally constituted, are concerned, and to delay action on this account would be far from reasonable. There is, moreover, another and, as it were, collateral aspect from which this subject may be approached, and it is not unlikely that one of the results of legislation in the sense above indicated might have the effect of bringing this side of the question very much to the front. The provisions of the Rivers Pollution Act do not apply to waters other than streams within the meaning of the Act of 1876, and it is in virtue of this exception that many of the estuaries in which oysters are laid down are exempt at the present time from the operations of the Act. Under the provisions of that Act, however, the Local Government Board possess power to determine to what tidal waters the Act should be applicable, and it is probable, therefore, that some relief may be found for polluted estuaries under this enactment. It is somewhat difficult to decide what authority or authorities should have the sanitary control of the oyster layings. Clearly, it is hardly possible to confer powers upon such sanitary authorities as are really themselves oyster companies, or whose members are financially interested in the oyster industry. In cases where a county medical officer has been appointed the powers might possibly be conferred upon the county council, and in Essex, for instance, we have no doubt that the county medical officer of health would advise as to the sanitary control with a due regard to the interests of public health and the magnitude of the trade involved. In some other counties, however, where the oyster industry is carried on there is no such machinery at hand, and we can well imagine that the proposal to confer upon the county council the control of the oyster industry would meet with what might prove to be insurmountable objections. Again, the central department which is at the present time concerned with the fisheries of the country—namely, the Board of Trade—has, as far as we are aware, no expert sanitary advice at its disposal, but doubtless this is an omission which could be easily rectified. The Local Government Board is certainly the central department which is best fitted to deal with questions such as these, but at the same time it may be contended that while the Board of Trade has control of the fisheries this matter should not be transferred to another department.

Annotations.

"Ne quid nimis."

THE JENNER MEMORIAL MEETING.

WE publish elsewhere a report of this successful meeting which was held last Monday at St. George's Hospital under the presidency of Sir Joseph Lister. It is refreshing to see in the closing days of 1896—the centenary of the year in which Jenner demonstrated the protective power of vaccination—some indications in his own country of a sense of duty and of gratitude to him for his immortal work. The account we give of the meeting shows the estimation by men of science of Jenner's work and its relation to the work which is making medicine brilliant in the closing years of the nineteenth century. It also shows what hinders the universal recognition of Jenner's merit and the necessity for some such means as we advocated last week for counteracting the work of the agitator by operating on a community not highly instructed and having exaggerated ideas of personal liberty. Nothing could confer greater honour upon Jenner's memory than such a meeting presided over by the President of the Royal Society, especially if it can be turned to account in the way of clearing away the mists of popular prejudice. Mr. Hutchinson's speech is especially important as showing that the result of the Royal Commission, of which he was a member, was the full vindication of vaccination as capable of doing all that Jenner said it could do, with this qualification, that it needs repetition. We shall have other opportunities of reverting to this subject before the public meeting of 1897. The efforts of the splendid committee nominated by the meeting must be to make this a demonstration of all sensible classes in the State, not excluding statesmen themselves. *Salus populi suprema est lex.*

MORE ABOUT CHILD INSURANCE.

THE seamy side of child insurance is constantly appearing. At Aston police-court sentence was recently given against the parents of two children to whom it had nearly proved fatal. Aged respectively eleven and nine years they were, when found by the hand of public charity, nearly starved, emaciated, filthy, and covered with sores. They were insured, nevertheless, for £10 each. We are not surprised that the presiding magistrate expressed his wonder that directors of companies and others interested in such insurances could sleep in their beds. Another child of the same parents had brought them by its death a profit of £7. In his remarks on this case the magistrate roundly suggested murder as the real cause of death. It is not by means of such exposures as these cases present, however, that we can hope for the security of infant life. What is really called for, as we have repeatedly urged, is a total change in the methods of such insurance. The insurance should cover not a handsome payment of money, not even a money payment at all, but that which alone has any conceivable justification in necessity—a decent burial.

PAUL VERLAINE AND THE MEDICAL PROFESSION.

TOWARDS the close of his life Paul Verlaine may be said to have divided his time between the various Parisian hospitals and sundry restaurants, chief among the latter being the Café François 1er, where the poet often had as neighbour a no less distinguished personage than the Minister of the Interior, or, as we should say, the Home Secretary. Spending half his existence in the eleemosynary, if somewhat lugubrious, seclusion of one or other of the great monuments to public benevolence, it was only natural that the erratic genius should frequently introduce medical topics into his works, both prose and verse. Occasionally these references were highly laudatory; but occasionally, also, they were very much the reverse, for in his bitter moods Verlaine was unequalled at vituperation. As a poet he was essentially the product of modern Paris, and to thoroughly enter into his meaning one should be to the manner born. His French was the language of the boulevards and contained a host of words (*banyuls*, for instance, and *todds*) which are not to be found in any dictionary. The following passage, taken from the too little read "Mes Hôpitaux," can, therefore, only claim to be an adumbration of Paul Verlaine's nervous prose:—

"Perchance some day we may recall with regret that good time when you, the workers, were reposing yourselves; when we, the poets, were working; when thou, the artist, wert gaining thy *banyuls* and thy *todds* with portraits of probationers and students, amidst what high jinks in the 'on duty' room! Yes, perchance some day, melodious of the past, those conversations from bed to bed, ofttimes from one end of the ward to the other, will come back to us. 'Now, then, gentlemen, a little silence, please! This is not the Chamber of Deputies. Hold your tongue, 27, perpetual patient that you are! It is always the season-ticketers that make the most row!' Discussions more than animated and anything rather than attic. They will come back to us, those slumbers cut short by cries of agony, by the vociferations of some drunkard; those awakenings to such news as—'No. 15 has kicked the bucket. Just listen to that pig of a No. 4; was there ever such a diabolical snorer?' Above all, there will come back to us, alas, as a useful regret, that sober calm, that strict security inherent to the abode—of pain! 'tis true, but likewise of sure ministration and certain bread. Perchance some day, when Death shall feel our pulse and disease, his forerunner and harbinger, shall hold us feverish and painstricken, and also, it may be, miserable and solitary, perchance we shall, by no means emotionless but with a species of sad—oh! how sad—gratitude behold once more those long, long rows of snow-white beds, those endless festoons of snow-white curtains, for everything is long and white, in one sort or another, in these asylums."

The foregoing description of hospital life contains nothing that a medical man need feel wounded to read, but in his "Invectives" Verlaine sounds a different note, clenching his fist, so to speak, alike against ward servants, pupils, and resident staff. In Ode XV., which is dedicated to Dr. de G——, we have a good specimen of the poet's objurgatory talent. Some of the less complimentary verses are to the following effect:—

Tu fus inhumain
De torte cruelle.
Tu fus inhumain
De façon mortelle.
Tu fus inhumain
Sans rien de romain.

Le pauvre à ta voix
Tremblait comme feuille.
Le pauvre — à ta voix! —
Qu'épuise et qu'endeuille,
La faim, à la fois,
La soif — et ces froids!

Tu n'as d'un romain...
De la décadence,
Tu n'as d'un romain
Que ta grosse panse.
Tu n'as de romain
Que d'être inhumain.

Et maudit sois-tu
Selon tes mérites,
Donc, maudit sois-tu,
Vil bourreau dodu,
Oui, maudit sois-tu
Suivant ta vertu!

Dr. de G—— was, no doubt, annoyed at being made the objective of so much bad language, but, as a writer in a Parisian contemporary observes, "The odelette will probably assist him better than the most brilliant *états de service*," for Paul Verlaine had a large following, and many of his readers, without much sense of proportion, considered him the greatest modern poet.

THE SALE OF AMERICAN DIPLOMAS.

OUR magistrates are occasionally disposed to treat seriously the alleged possession of American diplomas. If they would consult the best American teachers and practitioners they would hesitate to attach the slightest importance to such pretensions, knowing how numerous are the institutions in the States that give diplomas practically without education or examination. The *Medical Record of New York* of Nov. 21st says: "The Wisconsin Eclectic Medical College is still offering diplomas to practising physicians at much reduced rates, 35 dollars, all inclusive." The prospectus states that they come "as a boon and a blessing" to those who have hitherto practised medicine illegally. It is due to the many respectable medical schools in the States, which are making efforts to raise the standard of education, to expose all such institutions as make a low trade in diplomas. The misfortune is that there is no central power in the United States to suppress and punish colleges which so prostitute their functions.

THE HOSPITAL REFORM ASSOCIATION.

A GENERAL meeting of the Hospital Reform Association was held at the Hôtel Cecil on Dec. 3rd, Dr. J. Ward Cousins, the chairman, presiding. There was a considerable and influential attendance. The minutes of the previous meetings having been read and confirmed the honorary secretary (Mr. T. Garrett Horder, Windsor-place, Cardiff) informed the meeting of the progress the Association had made and urged the necessity of increasing the membership. The principal business was the consideration of certain proposals intended to be submitted to the managers of hospitals with a view to the prevention of the abuse of the out-patient and casualty departments. These recommendations were discussed *seriatim* and adopted. In substance they are as follows: (1) out-patients should be only such cases as are recommended by competent medical authorities; (2) only a limited number of new cases should be seen each day by each medical and surgical officer, and the Association begs to suggest that the number of such cases should not exceed twenty; (3) patients suffering only from minor ailments should not obtain treatment in the casualty department; and (4) "letters" or "subscribers' letters" or recommendations for the out-patient department should be abolished, and each case should be considered from the point of view of its suitability for gratuitous hospital treatment. These resolutions have, in our opinion, the great merit of being moderate, judicious, and above all practical. The task which the Association has set itself is heavy, requiring the exercise of much courage and tact.

Patients of the really and truly deserving class are not without their susceptibilities; hospital authorities have views and objects of their own, neither do they invite criticism; and the charitable public, on the other hand, whose good opinion is essential, is certain to wish that any system of discrimination between the various classes of applicants for relief should be interpreted with the utmost leniency. The subject, therefore, affords ample scope for the exercise of forbearance and sound judgment, but great results can hardly ever be attained without strenuous effort, and the reform of long-established evils supported by either sentiment, prejudice, or vested interest is a notoriously unpopular task. Of the abuses connected with hospital work the state of the out-patient department is the most conspicuous example. On this subject the proposed recommendations of the Association are, as we have said, sound, and their soundness will be admitted by all who have had experience of the thoughtless manner in which subscribers' letters are sometimes given, and the frequency with which they are altogether misused.

SCOTCH PRISONS.

IN a letter to the *Times* of Wednesday, Dec. 2nd, the secretary of the Howard Association draws attention to some glaring defects connected with the control and administration of these establishments. Judging from the tenour of his remarks, it is abundantly evident that efficiency is sacrificed to economy, for not only is the remuneration (doled out to) of the various grades of officials, especially medical officers, miserably inadequate, but the staff of warders and nurses is so depleted that the proper supervision of weak-minded prisoners is altogether impossible. Indeed, it is stated that the duty of nursing the sick in hospital is sometimes wholly confided during the night to a prisoner. Such a state of matters is utterly indefensible from more than one point of view and imperatively calls for speedy remedy. Weak-minded prisoners ought always to be placed under the personal supervision of officers who should be held responsible for their proper care and treatment. This method is now in vogue in the English prisons, and prior to liberation, the mental condition of every weak-minded prisoner is reported to the police of the district to which he is discharged, so that if again brought before any court, all the circumstances attending his case may be fully known. Apart from the question of safe custody, the responsibility attaching to the post of a prison medical officer is very great, and recent events have shown the paramount necessity of exercising extreme care in connexion with the bodily health and mental condition of prisoners. It is to be hoped that the Scotch prison authorities will take an early opportunity of increasing the present under-manned and over-worked staff of officers, and at the same time of providing them with a more liberal scale of pay.

HEAVY FINE OF AN UNQUALIFIED PRACTITIONER.

IN an important case lately judged by the General Medical Council a practitioner pleaded in excuse for employing unqualified assistants in responsible ways in his practice that the colliers, who constituted a large portion of his *clientèle*, preferred unqualified to qualified assistants. This does not seem to be a universal feeling among colliers, for we read in the *Birmingham Post* of the 5th inst. that at Kidsgrove, before Mr. Harold Wright, Benjamin William Davies, of The Hollies, Talk o' the Hill, was summoned by THOMAS HULSE, collier, Buglawton, Cheshire, for having, between Sept. 18th and Oct. 20th, pretended unlawfully to be a surgeon within the meaning of the Act of 1858. Though not in the Register for the current year he held himself out as a qualified medical practitioner. Evidence was adduced to show that on Sept. 18th Davies attended upon and prescribed for the son of a collier who died, and Davies gave a certificate of the cause of death. He afterwards sent in a bill for his services. The prosecutor consulted Davies and got medicines, for which he charged 1*s.* 6*d.*, and gave a certificate of sickness and inability to work. Worse still, he signed the certificate as "B. W. Davies, *per pro* Dr. Downs, M.B." Dr. Downs deposed that he knew nothing of the practice and never authorised the defendant to use his name. The defendant pleaded guilty and was fined £20 and costs. The penalty was the more justified as this was not the first offence. The stipendiary said that a little over twelve months since the defendant was convicted in two cases of this kind of offence and fined £20. Such convictions do much good and serve greatly to protect the public from the grossest frauds. But why did the registrar accept the certificate?

"WILFUL OBSTRUCTION."

IN a recent case of the Vestry of St. Pancras *v.* Ellisdon the magistrate decided that in regard of an obstruction to the Vestry in procuring disinfection of a room that had been occupied by a scarlet fever patient, there could not have been "wilful obstruction" because the parents of the patient did not believe their daughter really had scarlet fever. In this case scarlet fever had been notified, the patient had been removed to one of the Asylums Board hospitals on a magistrate's order, and the genuineness of the disease was sworn to in court by the medical officer of health and the medical officer of the hospital. Such a case seems almost inexplicable. Hitherto the requirement as to the term "wilful" has been regarded as fulfilled when the person in question has been informed on medical testimony as to the nature of the disease, and if every ignorant person is to be allowed to set up his view on a question of the diagnosis of disease against that of well-supported medical testimony no conviction could ever be secured either for wilful exposure, wilful obstruction, or any other like action. We should have been glad to have heard that the Vestry had determined, in the interests of the community, not to let the matter rest where it now does.

EXPLORATION OF THE THORACIC CAVITY.

QUENN, at the suggestion of Estlander, first executed section of the ribs without resecting them, while Delorme has improved upon this idea of a trap-door to reach the contents of the chest. Other similar operations have also been suggested, and another has now been proposed by Dr. J. McFadden Garton[1] of Atlanta. The cavity of the chest with the mediastinum is exposed. The arm is raised above the head and an incision made in the mid-axillary line, directly downward, from the third to the eighth rib, inclusive or exclusive, without dividing the pleural lining. The first transverse incision is from the upper extremity of the perpendicular incision along the upper border of the third or fourth rib, the second from the lower extremity along the border of the seventh or eighth rib, as may be requisite, extending in front to the costal cartilage. Any bleeding should be controlled before dividing the parietal pleura in making either of these incisions. Scissors which have a blunt point on the internal blade may be used for dividing the pleura in each line, and if the lungs have not been collapsed previously this will occur upon the entrance of the air into the chest. Upon elevating the detached margin of this flap, which includes all the structures of the thoracic wall, it will be found that the trap-door opens upon the hinges formed by the costal cartilage and admits of thorough examination of all parts of the chest, including the mediastinum on the

[1] Medical News, New York, Nov. 7th, 1896.

side of the operation. The advantages claimed for this modification of the trap-door principle of exploration are the great simplicity in making the perpendicular axillary incision through tissues involving no complications and the division of the ribs in a single line only. Dr. Garton remarks that it is evident that those who have adopted measures for gaining access to the thoracic cavity by a trap-door have overlooked the advantages of using the costal cartilages for the hinges of the shutter.

CHARING-CROSS HOSPITAL: THE SPECIAL APPEAL COMMITTEE.

A largely attended meeting of this Committee was held on Dec. 28th. The Duke of Saxe-Coburg and Gotha, President of the hospital, was in the chair and made an eloquent appeal to the charitable to assist in placing the hospital upon a sound financial basis. Other speakers, among whom were Lord Glenesk, Dr. Mitchell Bruce, and the Hon. F. D. Smith, followed. Stress was laid upon the fact that the hospital stands in one of the busiest traffic centres in London and therefore has a proportionately large field of work in the matter of accidents and casualties. It is desired to raise £100,000, and though this is a large sum we do not think it is one beyond the capabilities of London to find.

THE HIPPOCRATIC REVIVAL.

UNDER this title we have, within the last two years, drawn attention to the work devoted, mainly by German scholars, to the Father of Medicine—work which has taken the form of revised text, improved translation, and illustrative commentary. We have now to notice another important contribution to the same literature in a magnificent edition of the Commentary of Apollonius of Kitium on the Hippocratic treatise περὶ ἄρθρων (on the joints), again by a German scholar, Hermann Schöne. Apollonius, like another physician of note, Apollodorus, taught and practised medicine at Kitium, a town on the south coast of Cyprus. He flourished about the date 60 B.C. A still further confirmation of his date is the fact that his commentary is dedicated to Ptolemy—not the King of Alexandria but almost certainly Ptolemy Auletes, King of Cyprus. Little more is known of him, but his commentary has always been prized by medical scholars and has been carefully studied by Cocchi, Bandini, Ilberg, and Kühlewein. The manuscript on which the text before us is based is in the Laurentian library in Florence and its history, as given by Schöne, is of peculiar interest. Cocchi assigns it to the eleventh to twelfth century, but Schöne would place it earlier—in the second half of the ninth. It was bought on April 3rd, 1492, in Candia, by John Lascaris, on his second voyage to Greece, at the instance of Lorenzo de' Medici. It next received hospitality in the Bibliotheca Mediceæ under Piero de' Medici; then it was passed on to Rome at the request of Pope Clement VII. We next find it in the hands of Guido Guidi, physician to King Francis I. of France, who translated it into Latin; and then a copy of it was made for the library at Fontainebleau. It can be next traced to the library of Cardinal Ridolfi, from whose keeping it was transferred to that of Marshal Strozzi, and once more to that of Catharine de' Medici, from whom it finally found its way into the Laurentian Library before 1571. It constitutes the "fons et origo" from which the Parisian and other manuscripts are derived. All this and a good deal more related with admirable lucidity by Schöne leads up to the text, of which he presents us with a careful recension which is likely to remain the "textus ab omnibus receptus" for a long time to come. Hardly less important are the plates, thirty in number, which illustrate the text besides conveying to us a vivid appreciation of the anatomical science of the first century B.C. These are executed with consummate skill, thanks in the first instance to an able photographer, then to a not less competent lithographer, in whose hands the facsimiles of the manuscript and diagrams, clear, effectively coloured, and highly artistic, give the book a value of their own. The whole volume, published at Leipzig by Teubner, is indeed honourable to the medical scholarship of Germany and leads us to hope for other contributions to the elucidation of the Hellenic healing art from the same editor. In this connexion we may further draw attention to the new edition of Galen's writings in course of publication in the "Bibliotheca Scriptorum Græcorum et Latinorum Teubneriana." Three volumes containing his "scripta minora," edited by such well-known medical scholars as Marquardt, Müller, and Helmreich, are now supplemented by a fourth, the famous "Institutio Logica" (or Treatise on Logic), first rescued from oblivion fifty years ago by Minoides Mynas and just re-edited in an incomparably more accurate form by Kalbfleisch. In due course we shall have the medical treatises of Galen in the same series, coming opportunely to reinforce the vindication of that consummate thinker and physician which has lately been wrought in England—first, by the late Professor Romanes, and next, even more effectively, by the author of the last Harveian oration.

THE DENTAL HOSPITAL OF LONDON.

DESPITE the difficulties which the authorities of this hospital have encountered in regard to clearing the way for a site for the new hospital in Leicester-square, very distinct progress is being made and the students and staff will at no very distant date have the satisfaction of seeing the actual building operations commenced. Meanwhile the inconveniences arising from the unsatisfactory accommodation in the present hospital have to be patiently borne. Notwithstanding this, no less than 56,000 applicants were relieved at this institution during the last period of twelve months. The negotiations in regard to the site have been considerably interrupted by the fact of street improvements being required by the London County Council at the eastern approach to the square, and an income which was anticipated from certain old tenements and ground that had been acquired, pending the building of the hospital, will no longer be forthcoming, the houses having been pulled down to widen the street, and the authorities are compelled to sanction the commencement of building operations forthwith. They urgently appeal, therefore, for contributions to the building fund, so that the work may not be stopped and that they may be relieved of the responsibility which such an undertaking necessarily involves. The fund has made an excellent start, in which it must be gratifying to the staff to note—and it affords certain evidence of the necessities of the case—that the past and present students have had a large share. On the occasion of the annual dinner of the staff and students, which was held at the Hôtel Métropole on Dec. 5th, Mr. R. H. Woodhouse, M.R.C.S. Eng., L.S.A., L.D.S., presided, and in an interesting and amusing account of his student days, and of the meagreness of appliances and accommodation at the school at that time, urged the claims of the institution upon the charitable and those who could afford their money for the relief of the suffering poor. Their past history as a charitable institution was a surprising one in regard to the great number of cases—in spite of the congested and unwholesome character of the present building—which they had been able to relieve. In proposing "The Hospital and School" Mr. Henry Morris dwelt upon the excellent progress which dental surgeons had made by their own efforts in raising the standard of the profession to a desirable level, and on the satisfactory fact of the status of dental

examinations having been raised so that the candidate presenting himself must possess a sound knowledge, practical and theoretical, of the subjects which properly pertain to his profession—anatomy, surgery, and metallurgy. He noticed with satisfaction, too, that the proportion of cases of extraction had given way largely to stopping and crowning. Mr. Smith Turner, in his reply, drew attention to the peculiar difficulties under which the administration of a dental hospital, compared with a general hospital, was placed. Thus they had no in-patients and therefore no beds; their patients came and went, so that it was important to secure a central position in the metropolis, and he did not know any place more centrally situated than Leicester-square. The site had been chosen not for ostentation but for utility. The final toast, that of "The Chairman," was proposed by Mr. S. J. Hutchinson, and was suitably replied to by Mr. Woodhouse. During the evening a selection of music was given under the direction of Mr. Herbert Schartau.

ARSENICAL (?) SOAP.

AN interesting case was tried at Brentford on Dec. 6th, when a druggist, of Ealing Broadway, was summoned under the Food and Drugs Act for selling arsenical soap which contained no arsenic, and therefore was not of the nature, substance, and quality demanded. Evidence was given of the purchase of a cake of soap having impressed upon it the words "Arsenical Complexion Soap." It was carefully analysed and no arsenic could be detected. The manufacturer deposed that he put 2½ grains of arsenic into 3 cwt. of soap; but he did not pretend that this made any difference to the soap—he put it in because there was a demand for arsenical soap for the complexion. The witness went on to say that there was no white rose in white rose soap and no cucumber in cucumber soap. To this we should reply that if they are sold under these names there ought to be a reasonable proportion of the ingredients named. Such practices are only to be called by one name—i.e., fraudulent—and everyone knows that they are not confined to the fancy drug trade. Although the bench fined the defendant £5 they agreed to state a case so that an appeal might be made to a higher court. Another Ealing druggist was similarly convicted and fined, but we do not quite see why the manufacturer should not be haled before the courts as well as the retailer.

VEGETARIANISM.

IN a recent communication to the Société d'Ethnographie in Paris M. Verrier treated of vegetarianism from the point of view of its moral and intellectual effect upon the nations who, either from choice or necessity, are to be classed as abstainers from animal food. While fully recognising the dangers of a too abundant meat diet, as well as the advantages of purely vegetable nourishment, the speaker nevertheless felt constrained to come to the conclusion that Nature intended man to be carnivorous. The physical constitution of the human race is so ordered that to ensure the development of their higher qualities its members are of necessity compelled to become to a certain extent meat eaters. The attributes that make for dominion and progress are but imperfectly present among the eschewers of animal food, and hence vegetarianism causes the downfall of dynasties and leads to the enslavement of peoples. If, continued M. Verrier, the Hindus, instead of following an absolutely vegetable regimen, had made use of meat in a rational manner perhaps the British might not have found their subjugation such an easy matter. His argument was equally applicable to the Irish, who lived exclusively upon potatoes. As for the Japanese, with whom rice was formerly the staple food, the energetic nature of this people could not be cited in subversion of the rule laid down in his thesis. The re-awakening of the conquerors at Port Arthur and the Yalu River was coincident with the establishment of a trade in butcher's meat throughout their archipelago. With regard to British supremacy in India M. Verrier has entirely omitted to take into consideration the numerous and warlike Mussulman population, in addition to whom, moreover, there are in Hindustan many millions of native meat-eaters; and with regard to his Hibernian argument, surely such an erudite ethnologist cannot be ignorant of the fact that even in the most distressful cabin from Malin Head to Cape Clear the national animal may still be found. Now a pig does not yield any milk to speak of, neither can it be shorn to advantage or utilised for purposes of draught. The inference is too obvious to need elucidation.

ISOLATION HOSPITALS IN CHESHIRE.

THE Cheshire farmers do not take kindly to the idea of supporting isolation hospitals. At a general meeting of the Cheshire Chamber of Agriculture the principal business was to consider the proposal of the county council to contribute out of the county funds towards the erection of isolation hospitals in urban and rural districts. The county council, it seems, had decided to bring pressure on the local authorities to carry into effect the provisions of the Isolation Hospitals Act, 1893, as the bodies were very slow to move. The county medical officer, Mr. Vacher, in a report said that one bed per 1000 of all classes of the population would be a fairly adequate provision, and that, taking the population of the county as 536,644, accommodation was required for 533 beds. This provision would cost about £150,000—in the proportion of £99,600 urban and £50,400 rural. The mover of a resolution adverse to the plan said the meeting "would be asked in effect to say whether they thought the poor ass of agriculture ought to bear any burdens but his own." The resolution protested against the proposal as bearing unjustly on the ratepayers in agricultural districts and urged the strongest opposition to it. There is no doubt a danger lest these schemes should be made more costly than necessary; and while sufficient provision, of course, ought to be made for infectious disease, it can readily be understood that when farmers can scarcely keep their heads above water they will dread any increase of their burdens.

THE PLAGUE IN BOMBAY

ACCORDING to the latest accounts from India the epidemic of bubonic plague shows no signs yet of any marked abatement. The number of cases in Bombay has, on the contrary, been somewhat increasing of late, and several Europeans are stated to have been attacked. The disease still continues in the Mandvi district and cases have also appeared in several other districts of Bombay, and one, which proved fatal, is reported to have occurred on board a steamer, causing the vessel to be placed in quarantine on her arrival at Kurrachee. A fatal case has occurred just outside the limits of the Calcutta municipality, which has been the subject of special investigation by Dr. W. J. Simpson, the health officer of that city. The accounts as to the exact nature of the disease that has prevailed in Calcutta vary and are somewhat conflicting, for according to some of them it is still doubtful whether the cases are those of true plague, as the micro-organism associated with the disease, it is alleged, had not been discovered. The *Indian Medical Gazette* for last month contains a paper on Pestis Ambulans, by Surgeon-Lieutenant-Colonel Cobb, M.D., of the Indian Medical Service, and Dr. W. J. Simpson, in which these authorities, referring to the medical histories of past epidemics, have pointed out the relationship between

mild cases of fever accompanied by glandular enlargements and those severe outbreaks of the disease which have at times devastated whole communities. Their aim is to establish the pathological affinity or identity of the mild with the fatal form of the disease and to show that this relationship had not escaped the observation of either the older authorities or of those of our own time who had furnished reports and descriptions of the more recent outbreaks of the plague in North Africa, Mesopotamia, the Levant, Astrakhan, and elsewhere. The writers of the article on Pestis Ambulans state that their attention having been drawn to the fact that cases of glandular sickness with fever had occurred in Howrah, Calcutta, and Chinsurah, they had instituted an inquiry and made an examination of several of these cases, of which they furnish detailed accounts. In some of them they found on examination of the blood a diplo-bacterium essentially similar to the bacterium discovered by Kitasato and Yersin in the Hong-Kong outbreak of 1894. As regards the origin of the disease in Bombay several explanatory theories have been adduced, such as importation from Hong-Kong or from the Persian Gulf and the use of diseased grain, as well as overcrowding, bad drainage, and insanitary causes generally.

SIDE-LIGHTS ON THE PLAGUE OF LONDON.

THERE is no quarter from which the historian may not draw materials—a fact of which none are more cognisant than workers in the history of medicine. The Plague of London has been described with a fulness of detail denied to other visitations hardly less memorable, but still it seems there is fresh light to be thrown upon it. The *Scottish Review* for the current quarter contains a highly interesting and ably written article on the "Coronation of James I. of England," and its writer, Mr. Guy le Strange, has availed himself of the despatches of the Venetian Envoy sent home week by week to the Serene Republic by Mr. Secretary Scaramelli. These "dispacci," as giving us "a vivid picture of the time," are, says Mr. le Strange, "unrivalled," but their number is so considerable that only a "very small part has as yet been copied, translated, or even calendared." Those of 1603 (hitherto unpublished) are what Mr. le Strange has been deciphering, and besides a singularly animated and curious account of King James's Coronation they give, as we have said, side-lights on the plague, which are not only interesting in themselves, but suggest to us what yet may be derived for the elucidation of the same subject from other contemporary reports addressed by accredited eye-witnesses to their respective Governments. Like most epidemics of the kind the "Plague of London" had several stages, all within a few years of each other, till they culminated in the "Great Plague" *par excellence* of 1665. It is with that of 1603 that Scaramelli has to do, and certainly his details regarding it are ghastly enough. To his despatch dated June 14th (May 25th, Old Style) he adds a postscript that "during this last week 22 have died of plague in 13 parishes," while in the following week he announces 32 deaths from 15 infected districts. The plague steadily gains ground, 30 dead are recorded within the seven days ending June 19th (New Style), and "the Court removes to Windsor, where the King remains and awaits the arrival of the Queen," and so on; but the warnings it signalled were so little taken to heart that succeeding visitations found the authorities as unprepared for mitigating or combating it as before. Overcrowding, if not its provoking, was certainly its aggravating cause, and yet we read that "the Queen arrives to-day at Windsor with 250 coaches and more than 5000 horsemen, for these during the whole length of her journey kept increasing in numbers, being intent on escorting her." They were equally escorting the plague; but while we read of this great accession to an already overcrowded quarter the only countervailing measure we are told of is that "an order had been issued for all dogs to be killed." Half the expenditure lavished on the ceremonial so vividly placed before us by Scaramelli would, if applied to the relief of the congested lanes and alleys, have been more to the purpose than this hecatomb of dogs. But the laws of health had yet to be discovered and framed, and State medicine formed no part of King James's "kingcraft," any more than of the Government of the Serene Republic to which its envoy addressed the despatches so vividly brought to our notice by Mr. le Strange.

TYPHUS FEVER AND INFLUENZA.

THE Vienna correspondent of the *Standard* telegraphs that an epidemic of typhus fever and influenza has broken out at Pola, where there are 500 cases of typhus fever in the Naval Hospital and 250 in the municipal ward. Nearly every house is said to have its sufferer from one or other disease. The Berlin correspondent of the same journal also records a serious recrudescence of influenza in that city.

BEATTY *v.* CULLINGWORTH.

WE publish to-day a further list of subscriptions to the fund which is being raised to indemnify Dr. Cullingworth against pecuniary loss on account of having done his duty to the best of his ability. We note with great pleasure the generous way in which the profession has responded to the appeal made to it, for if anything can atone to Dr. Cullingworth for all the anxiety and trouble he has gone through it is the knowledge that his action has the unanimous support and approval of his professional brethren.

AUTOTOXIS AND INSANITY.

DR. ALLAN MCLANE HAMILTON has in recent papers discussed with care and clearness an apparent relationship between "Intestinal Autotoxis and Insanity."[1] As the result of observation in fifty cases assisted by experiments performed on rabbits he finds himself unable to recognise any specific or noso-toxicity in the urine of the insane, and in particular he has not been able to discover that any such property is markedly associated with the retention of uric acid by the blood. Where this product is apparently active he regards it rather as possibly indicative of the destructive metabolism of the nuclein of leucocytes and as related to a primary intestinal disorder. The absorption of leucomaines which he administered to rabbits in food in the form of hypoxanthin was attended with a distinct but not a very markedly disturbing effect on the nervous system. On the other hand, a clinical investigation into the changes occurring in the contents of the intestinal canal and their effects upon mental states and upon the condition of the urine shows results which are at least suggestive. Briefly stated, these are such as go to prove constant association with some forms of mental disorder of putrefactive changes in the lower bowel. An equally constant result of this process is the excretion by the kidneys of large amounts of indican (indoxylsulphuric acid) and of combined sulphates, evidently derived from toxic absorption at the seat of intestinal putrefaction. Certain forms of insanity are, in Dr. Hamilton's experience, generally related to this autotoxic condition, while others do not in this respect agree with them. The former include acute insanities with rapidly developing symptoms, post-febrile, traumatic (after operation, &c.,) and alcoholic forms of the disease, cases due to drugs, and cases of transient hallucination connected with insomnia and gastro-intestinal disorders. Into the other and non-toxic category come the stuporous and chronic insanities. The treatment advised for the toxic series consists

[1] New York Medical Journal, Oct. 31st and Nov. 14th, 1896.

of purgation, especially by enemata, the use of intestinal antiseptics, of which sodium salicylate is that most approved, and blood-feeding remedies to combat the anæmia consequent on the destruction of blood-corpuscles which is present in all such cases.

IS SENSORY APHASIA COMPATIBLE WITH WILL-MAKING?

IN the paper read by Dr. Mantle of Halifax at the last meeting of the Medical Society of London on Sensory Aphasia, which was reported in THE LANCET of Nov. 28th, he related the fact that one of his patients, while deaf and blind to words, as well as having complete paralysis of motor speech, expressed a wish to make his will and made his wishes known by forming the outline of the letters on the bed-sheet with his finger. The patient made his lawyer and wife understand that when they meant "Yes" they were to squeeze his hand and when "No" they were to tap it. To satisfy the patient the will was executed and with his left hand he managed with difficulty to write his signature to it. Gowers remarks that inasmuch as the testator cannot understand what is said to him the testamentary capacity is worthless in the condition of word-deafness and blindness such as this patient had. But it seems difficult to conceive that a patient in the condition described could indicate correctly by forming letters on the sheet what his wishes were. If he did so, then he had no agraphia. And how he could sensibly indicate the somewhat involved arrangement by which "yes" or "no" were to be expressed is very difficult to understand. Such a case with reference to testamentary capacity would have to be judged on full and complete evidence. Undoubtedly, as a general rule, it is true that a patient who is word-deaf and word-blind is not in a condition to understand and therefore to make a valid will.

THE MEDICAL MAN AND THE SERVANT.

A CASE of considerable interest was lately entertained by the Council of the London and Counties Medical Protection Society, Limited. The facts were briefly these. An employer requested a medical man to attend and prescribe for his servant. The information obtained by the medical man was communicated to the employer, and in consequence the girl was dismissed. Subsequently she commenced an action for slander against the medical man, but the action was compromised by a solatium and the payment of costs. We understand that a legal opinion was taken as to whether a report of a servant's condition to his or her employer was privileged and that the implied question was answered in the affirmative, but that information given to a third person—as happened in the above case—would not be covered. To the latter proposition we fully subscribe, but with all submission we question the former—at least we should not care to run the gauntlet of an action at law with any degree of confidence that the court would rule in our favour. The question of privilege is a very wide one and depends upon the circumstances in individual cases. The tendency is to limit its application and wisely so. The Council of the Association expressed the opinion "that a doctor consulted by an employer in reference to the health of a servant should obtain the written consent of the servant before presenting or divulging the result of his examination to the employer in such cases where the servant might be likely to object to his doing so." We are inclined to go a step further and say that when a medical man's services are requested under the conditions above narrated, it is implied that the employer desires to know and expects to know the result of the medical examination. We are, therefore, of opinion that the servant should be acquainted with the fact that the examination is to be made not only for the purpose of establishing a diagnosis and so founding a basis for treatment, but with the ulterior object of procuring information for the employer. It is better to make this a hard and fast rule, for if its application is limited to those cases where "a servant might be likely to object" the practitioner will lay himself open to reprisals, however carefully and circumspectly he may otherwise act.

THE CRY OF THE SHOP ASSISTANT.

A MEETING of the Early Closing Association which has just been held in the South of London calls attention to the fact that in that district shop assistants are made to work from seventy to eighty hours per week. This state of things is by no means new. Four years ago we published the report of a Commission which went into the whole question of "Sanitation in the Shop," and among other things showed the hours worked by this section of the community to be excessive. This year it was stated in the House of Commons that thousands of shop assistants were being worked fourteen hours a day and sixteen hours on Saturdays. If this obtains at ordinary times throughout the year it is still more the state on the approach of public holidays, and Christmas will add greatly to the woes of a much-suffering class. A week or a fortnight before Christmas the half-holiday rule is suspended by many proprietors, and life in the shop becomes one continuous round of toil. Some of the employés who have homes in the country are forced by the exigencies of the occasion to leave town on Christmas Eve by midnight trains, which they are barely allowed time to catch, and thus with mental and bodily powers exhausted they reach their homes to take part in festivities which under the circumstances further exhaust vitality. We have only touched the fringe of the question, but when it is considered that to the strain of continuous working upon scanty or poor food must be added the effects of long standing, and that by far the greater number of hands are young girls, it will be readily believed that the amount of preventable sickness and suffering is very great. The question of long standing and insufficient food can be remedied by the employers, but the question of long hours is one for which the public are almost entirely to blame. Whatever may be the hour of closing women may be seen rushing into a shop, often for some trivial article, just as the lights are being turned low and the blinds are being drawn. The poor assistant, who has packed up for the night, is compelled to undo her wares. Nothing can be more cruel than this procrastination. We believe that it arises more from want of thought than from want of heart, but we earnestly hope that the women of England will maintain their reputation for kindness, and will look to it that their sisters, who are compelled to toil standing all day in a shop and put on a smiling face, however weary and ill they may be, shall not suffer through thoughtlessness. It is not possible for many customers to do their shopping until even-time, but all who can avoid supporting with their custom those shops which overwork their employés should do so, especially at a time when peace on earth, good-will towards men should be the prevailing sentiment.

ANNUAL DINNER OF THE HARVEIAN SOCIETY OF LONDON.

THE Harveian Society of London held its annual dinner at the Café Monico on Thursday, Nov. 26th, the President, Mr. J. Knowsley Thornton, being in the chair. Nearly 100 members and friends were present. A very pleasant evening was spent. After the usual loyal toasts from the chair Professor Clifford Allbutt gave that of "The Society," congratulating the members on its continued prosperity and thanking them for their kindness in nominating him as a corresponding member in place of the late

Sir George M. Humphry. The toast was replied to by the President. "The Kindred Societies" was given by Mr. Edmund Owen in facetious and eloquent terms, and the Presidents of the Royal Medical and Chirurgical, Pathological, and Clinical Societies—Dr. Dickinson, Dr. Buzzard, and Mr. Butlin—replied. The toast of "The President" was proposed by Sir William Broadbent, who drew attention to the arduous labours of Mr. Thornton, mentioning that he was one of the first to adopt the antiseptic treatment, and that he had met with signal success as an ovariotomist and in other forms of abdominal surgery. Mr. Thornton on rising was most warmly received. He said that he was sorry to have to apologise for not being present at some of the meetings, but that severe illness was his excuse, and he was sure from the sympathetic attitude of his audience that it had forgiven him his involuntary absence. He cordially thanked the society for its kindness in receiving the toast of his health, and also thanked those who had so ably filled the chair whilst he was away. The health of the Honorary Treasurer was enthusiastically received. In his reply Mr. Cripps Lawrence said that he was retiring at the end of the year after three years' service. The toast of "The Secretaries," replied to by Dr. Cagney and Dr. Cock, brought the evening to a close. An excellent selection of music by members and their friends added greatly to the enjoyment of the meeting. Songs were given by Mr. G. Tate, Mr. Staples (violin obbligato Mr. Roughton), Mr. Sidney Cole, and by Mr. Mervyn Dene, who also kindly accompanied.

MEDICAL TREASURE-TROVE IN SWITZERLAND.

OUR knowledge of the medico-military organisation of ancient Rome owes not a few of its most distinctive details to Switzerland. Windisch, for example, the Vindonissa of antiquity, has proved to the Swiss archæologist a real mine of surgical treasure-trove, lying as it does at the junction of the Aare and the Reuss and commanding on the one side the two Italian highways (from the Great St. Bernard and from Como) and on the other the communications with the Rhine and Danube. Here was found the celebrated monument with inscription to Tiberius Claudius Hymnus, surgeon of the Twenty-first Legion. Here, too, has been unearthed quite an *armamentarium chirurgicum* in the shape of medicine chests, instrument cases, with pincers, scalpels, needles, catheters, and such-like in fine preservation. Dr. Conrad Brunner of Zürich has based on these discoveries a highly interesting monograph entitled "Die Spuren der Romischen Aerzte auf dem Boden der Schweiz," and the enthusiasm he has awakened in the medical branch of archæological research bids fair to fructify in even more precious discoveries. Not many days ago there was disinterred at Baden-im-Aargau, not far from Windisch, a Roman house containing fourteen apartments, varying in size, and with walls painted with designs of the highest interest for the classical scholar. When exposed to the light of day there appeared about the structure a number of *fibulæ* and vases and in the apartments themselves such a quantity of surgical instruments as to favour the conclusion that the house was neither more nor less than a hospital. This is in many respects a novelty in medical archæology. We have very clear notions as to what the *valetudinaria* or infirmaries for slaves on patrician estates were like; but a building for the wounded or ailing Roman soldier presents points of interest, as hitherto no such buildings have been found in their integrity. Moreover, when we add that never either in Switzerland or in any other scene of Roman military occupation has there been found so large an assortment of surgical instruments as in this newly discovered hospital near Baden we have said enough to awaken scholarly and professional curiosity in the spot and to lend additional attraction to the picturesque "Kurort," known since the first century A.D. on the banks of the Limmat.

THE HEALTH OF SIR WILLIAM MAC CORMAC.

SIR WILLIAM MACCORMAC during the past week has made further satisfactory progress. He is now able to be up several hours daily and is steadily gaining strength. The empyema cavity which was opened three weeks ago has contracted to quite small dimensions, and during the last few days there has been scarcely any discharge from it.

WE understand that Dr. Thorne Thorne, C.B., and Dr. S. Monckton Copeman, of the Medical Department of the Local Government Board, are engaged in visiting certain cities on the continent of Europe to ascertain the results obtained in vaccinations by the aid of calf lymph prepared in glycerine.

ALTHOUGH the result of the election of direct representatives in the General Medical Council has not yet been announced, we are able to say that the names of the successful candidates in order are Dr. Rentoul, Mr. Brown, and Dr. Glover.

DR. BERNARD O'CONNOR of Lincoln's-inn, a graduate in medicine of the Royal University of Ireland and a practising barrister, is a candidate for the vacant coronership in Essex.

Pharmacology and Therapeutics.

LOCAL APPLICATION OF SALICYLATE OF METHYL IN RHEUMATISM.

DR. LANNOIS and Dr. Linossier have shown by experiments that salicylate of methyl is easily absorbed by the healthy skin and is readily found in the urine and fæces after a local application has been made. These results suggested the use of external applications instead of internal ones. They, moreover, found that volatile bodies, and especially those which, in spite of a high boiling point, possessed a certain vapour-tension at the ordinary temperature, were capable of being absorbed by the healthy skin in greater quantities than the usual therapeutic doses. In the case of guaiacol and salicylate of methyl the power of absorption was found to be regulated by invariable laws and so allowed as precise a dose to be given as could be through the alimentary canal. The medicine should be applied to the joint on gutta-percha, which is to be covered up with cotton-wool and bandages. It is important that this dressing should be impermeable, otherwise the vapours will diffuse into the atmosphere and will not have the same tendency to pass through the skin. These observations were based on twenty-four cases, full notes of which are given. Four of these were cases of acute rheumatism, eleven subacute, seven chronic, and two of the gonorrhœal type. Some success was also obtained by this method in several cases of neuralgia and other peripheral pains. Pain is said to be usually relieved about six hours after the application. Dr. Lannois and Dr. Linossier have also shown that the elimination by the urine commences about half-an-hour after application, attains its maximum between the sixth and seventh hour, and that 80 per cent of the total amount which is eliminated is contained in the urine passed during the first twenty-four hours.

THERAPEUTIC NOTES ON THE USE OF ERGOT.

Ergot is most familiar to us in connexion with uterine disturbances, but it may often be usefully employed in other classes of cases. One of its principal effects is to cause contraction of the small arterioles, and on this account it has been recommended in cases of hæmoptysis, hæmatemesis, and other hæmorrhages. Opinions differ a good deal as to its efficacy in these conditions, and it is always difficult to decide whether the arrest of the hæmorrhage was *post* or *propter*, but nevertheless it is a drug that may be

tried. Various neuralgic pains are said to sometimes yield to ergot and it certainly does good in some cases of migraine. In one case great relief was obtained after bromides and all the other drugs usually given in this malady had been tried. In this case the patient had suffered for years, and although the administration of ergot did not actually prevent attacks it so far mitigated them as to allow the man to continue his work (which was that of a gardener).

PREPARATION OF PILLS OF IODIDE OF POTASSIUM.

M. Duyk proposes a method of preparing pills of iodide of potassium which consists essentially in avoiding all aqueous excipients, which always favour deliquescence of the pills. The excipients which he uses are the powder of benzoin or olibanum and alcohol. To ten parts of finely divided iodide of potassium he adds three parts of powder of benzoin or olibanum, and then, with the aid of a few drops of alcohol, reduces the mass to the form of pills. These pills quickly harden, but at the same time they preserve their property of dissolving quickly in the gastric contents. They keep unchanged for several months, even though exposed to a moist atmosphere. After some weeks they generally acquire a thin brownish pellicle which does not give the reactions of free iodine.

THE ANTISEPTIC VALUE OF IODOFORM.

This question has been re-investigated by Lomry,[1] who has succeeded in explaining the different results obtained by bacteriological experiment and surgical experience. He confined his investigations to the pyogenic strepto- and staphylo-cocci, because it is concerning these that the real differences exist. With infected wounds in dogs, as in human beings, he found that iodoform aided the healing process. *In vitro* the growth of cultures was markedly diminished by the addition of iodoform to the nutrient medium. The negative results of previous observers are due to their employing culture media in which iodoform is insoluble; if various kinds of serum in which iodoform is slightly soluble are used the effect is very appreciable and explains the action in suppurating wounds. By further experiment it was also shown that the virulence of the micro-organisms is diminished and their toxines partly neutralised by iodoform, and so far from injuring leucocytes iodoform actually stimulates phagocytosis. But since it is not bactericidal, ordinary aseptic precautions should not be neglected and clean iodoform should be used, and iodoform dressings renewed daily, so that leucocytes which have done their work may not remain as food for surviving microbes.

ON THE PLAN OF CONSTRUCTION OF HOSPITALS AND INFIRMARIES.

WE have received the following very interesting communication from a correspondent who is really able to speak authoritatively concerning the points which he advances tentatively and upon which he seeks a definite pronouncement. He thinks that the fashionable pavilion system of hospital construction is wrong. That such a definite pronouncement would be desirable at this moment is undoubted. Infirmaries, large and small, are constantly being built throughout the country. There is one in process of construction at Birmingham, and at Manchester the erection of two large new infirmaries is now much talked of—the rebuilding of the Royal Infirmary and of St. Mary's Hospital. If the statements made below are sound the question of plan of construction must evidently be one of very great importance to the boards of management of these institutions as well as to others in large towns, where the difficulty of obtaining space is so great on account of the expense involved. Those of our readers who know Manchester must be aware of the commanding situation of the Royal Infirmary in that city—one of the finest sites in the kingdom. If the necessary extension of the building can only be obtained by expansion on the pavilion system the fine open space so much prized by the inhabitants must to a great extent be destroyed. But if two pavilions may be fused together into one block, and the building be carried upward the difficulty, which at the present time is causing much concern to the public at Manchester, could be obviated.

"During the summer," he writes, "a discussion of the greatest importance to those interested in the plan of construction of hospitals and infirmaries appeared in our contemporary, *The Builder*, and, as one of the writers said, 'there is no architect cognisant of the difficulties attendant on hospital construction who does not desire to know, first, what are the demands of medical science, and secondly, by study, to comply with them as far as possible. This is surely a doctor's question.' For thirty years or more medical men have demanded that wards should be constructed on what is known as the 'pavilion' system, and everywhere, throughout the length and breadth of the land, almost every new hospital has been erected in accordance with this demand. This was largely due to the septic infection which carried off so many of our countrymen in the crowded huts of the battlefields of the Crimea and to the statistics adduced by the late Sir J. Y. Simpson in his work on 'Hospitalism.' Simpson's statistics have been, we think, refuted by Mr. Timothy Holmes, inasmuch as he showed that the cases admitted into large infirmaries are often of a desperate character, while those in country infirmaries and those operated on by private practitioners are for the most part of a trivial character. Mr. Holmes also showed conclusively that the death-rate of a hospital gives no adequate index of its healthiness, but that many other factors have to be taken into consideration. The pavilion plan, in short, came into vogue probably on entirely insufficient grounds, and the question now is, Is it necessary that it should be continued? The *rationale* of the pavilion system consisted in the free ventilation of all parts of the ward by the opening of the windows in order that there might be no accumulation of septic material on the walls or furniture of the wards. But the introduction of antisepticism into surgical practice and the adoption of mechanical methods of warming and ventilating our wards have completely revolutionised the conditions under which both medical and surgical practice are now carried on, so that it may appear to many that a definite pronouncement as to whether the pavilion system is required under the changed conditions is now called for. On theoretical grounds the argument that block-wards may be in all respects as healthy as those on the pavilion system seems indisputable: but the writer has made it his business to inquire from those actually practising in the former whether they consider them less healthy than the latter. One correspondent from St. Bartholomew's Hospital states that 'he is quite sure that the feeling of the staff would be that the block wards are not in any degree less healthy than the newer pavilion ones. This opinion would be founded on the fact that the results obtained are as good as any that are ever published from any other hospital.' Another correspondent from Guy's Hospital states that 'the newer parts of the hospital are built on the block system with a central spine and four rows of beds. They are occupied by the medical cases, but occasionally surgical cases are temporarily transferred to them. ..... We have never had anything going wrong with our surgical cases in these wards. ..... I do not think that there can be any serious objection to the "spine" system if space is limited. I should choose the pavilion system if there were any choice. But I do not think that our experience at Guy's shows any evidence against the double pavilion system.' A correspondent who some years ago had medical control over more than 1000 patients in a provincial workhouse infirmary states that all the beds were placed in block wards, and except on account of the dangers of open window ventilation there never was any question as to their healthiness. Mr. Timothy Holmes, who with the late Dr. Bristowe was appointed a commissioner by Government to report on the hospitals and infirmaries of the United Kingdom, states in reply to my letter that 'he would dissuade from the great expense which would be incurred by adopting the pavilion system—the waste of ground, the ugliness of the resulting structure, and the expense of administration.' An eminent architect has also been consulted, who is an acknowledged expert on hospital construction. He says that though accustomed by the prevalent fashion to the pavilion system he could detect no flaw in the argument for the block plan. As regards the method of ventilation, on which the whole question turns, it is not proposed at present to speak in

[1] Archiv für Klinische Chirurgie, vol. liii., p. 787.

favour of one way rather than another. The old system of so-called 'natural ventilation,' which is no system at all, must, of course, be given up except during summer weather. How many a promising case has received its death-blow by the opening of a window and the icy blast thus poured down on his head! But the great principle underlying all mechanical systems is that the air should be properly warmed and cleansed of its impurities before admission to the wards. By a proper system of flues it is carried to the bedside of every patient, and thus, save only for the consideration of light, a ward may be built of almost any size or shape. An ideal ward, having regard to the proportions of length, width, and height, would be one of, say, four rows of beds, each accommodating six or seven patients, with a low mid-feather to allow cross light from each side and a large window at the end. The height would be about 13 ft. and the width of each side about 25 ft. or 26 ft. Thus the long, narrow, and æsthetically objectionable pavilions, with their twelve or fourteen rows of beds on each side, and complete disproportion between length and all other dimensions, would be abandoned."

The subject is one to which we shall return. It is not one upon which any definite pronouncement can be made off-hand; but for that very reason those interested in hospital construction may well be expected to reflect on the question here raised before agreeing to any plans that may be at present before them. If the fashionable pavilion is only a matter of sentiment architects should be loosened from tyranny and allowed a free hand in accordance with the space at their disposal; and we consider that our correspondent has made out a very good case for such a course.

THE REPORT OF THE ROYAL COMMISSION ON VACCINATION.

(*Continued from p. 1549.*)

THE DECLINE IN SMALL-POX FOLLOWING THE ADOPTION OF VACCINATION.

The Position at the beginning of the Century.

As already stated, it is quite impossible to do more than glance at many parts of the Report. A good deal of attention is given to the great diminution in small-pox which occurred in the early part of the century. It is shown that by the year 1820 vaccination had come to be very generally practised, at least in towns, and illustrative facts are cited from Canterbury and Norwich and London. The possible influence of the diminution of the practice of small-pox inoculation in producing a diminution of the prevalence of small-pox, and especially of deaths from small-pox, is considered. It is pointed out that the London bills of mortality show no evidence of an increase in small-pox deaths as a result of increase in small-pox inoculation in the latter part of the eighteenth century, and it is held that the diminution in small-pox which occurred after vaccination came into vogue cannot be set down to the diminution of inoculation. Attention is called to the contradictory position assumed by anti-vaccinationists on this point. It is alleged, on the one hand, that a decrease in the practice of small-pox inoculation is sufficient to account for the decrease in small-pox early in the century; while, on the other hand, it is alleged that Woodville's lymph was variolous and not vaccinal in nature, and that it was this lymph that came universally into use. If this had been so, then the practice of vaccination, so-called, would really have been a continuation of the practice of small-pox inoculation. The dilemma of the anti-vaccinationist is obvious. If "vaccination" were really variolation, then the alleged diminution in the practice of variolation was quite unreal and cannot be advanced in explanation of the lessened small-pox mortality. The Commission hold, further, that the diminution in small-pox in the early years of the century was not due to sanitation, and that the disease declined in various countries varying much in sanitary conditions. Nor was it due to "cosmic" or "secular" causes, and, in short, there is nothing but vaccination to account for it, and there was no want of correspondence in the amount of vaccination and the amount of the decline of small-pox. Here, of course, it has to be borne in mind that the number of people requiring the protection of vaccination in the beginning of the century was comparatively small. The great majority had been protected either by natural small-pox or by inoculation of small-pox, so that vaccination, though far from universally practised, was sufficient to make a very great diminution in the remaining liability to small-pox.

Vaccination and Small-pox since 1838.

After giving an account of the vaccination laws of England, Scotland, and Ireland, the Report proceeds to consider the influence of the spread of vaccination on small-pox mortality since the time when the Registration Acts came into force. It is shown that in England there has been since 1838 a marked, though irregular, decline in the death-rate from small-pox and that the decline has specially shown itself amongst the population under ten years of age, who are most of all under the influence of primary vaccination. In Scotland vaccination was made compulsory so recently as 1863, while the Registration Act dates only from 1855. During the period 1855-1864 the small-pox death-rate gave no indication of decline, but since 1864 there has been a marked decline, and again there has been a striking change in the age incidence. For Ireland exact statistics of vaccination from 1831-1894 are not available, but so far as they go they teach the same lesson and there is the same striking change in the age incidence of fatal small-pox. The general result is that in the British Isles "a more vaccinated population has exhibited a diminished mortality from small-pox."

The Influence of Sanitation.

Here again the question arises, Is the decline due to sanitation? In so far as a diminishing proportion of the urban population has been living in densely built areas and in over-crowded dwellings, sanitation has tended to diminish small-pox. On the other hand, there has been in Great Britain a vast increase in the total population, so that the total average density has increased, and still more important is the fact that a constantly growing proportion of the population has come to reside in towns, especially in the larger towns. Besides there has been as an agency capable of spreading small-pox, an "enormous and continued extension of movement among the population and of communication with other countries, following the increasing facilities for such movement and communication." While, therefore, some sanitary and social changes have tended to diminish small-pox others have simultaneously tended in the contrary direction, and the Commission does not think it possible to assert that the balance between the two would tell in favour of a smaller mortality. If, however, improved sanitary conditions were really the cause for the decline of small-pox, a similar influence should be shown over other diseases. "Why should they not produce the same effect in the case of measles, scarlet fever, whooping-cough, and, indeed, any diseases spread by contagion or infection and from which recovery was possible? Why should they not lead to these diseases also prevailing less and to those attacked by them being better able to combat the disease? We have had put before us no satisfactory answer to these questions." After detailed consideration of the statistics of mortality from measles since the passing of the Registration Acts the Commission arrive at the conclusion that, with regard to this disease, the total effect of the changes in sanitary conditions in England and Scotland "have been scarcely appreciable." Similarly scarlet fever shows no decline comparable with the small-pox decline. Neither in England and Wales, nor in Scotland, nor in Ireland, was there any sign of decrease in the scarlet fever death-rate until about 1880, by which time of course small-pox had very greatly diminished.

It is true that in registration of deaths from "fevers" there has been a very large diminution, but here nomenclature and classification have undergone great changes as a result of improved diagnosis. In addition, however, there has undoubtedly been a genuine decrease in mortality from fevers. Drainage, including soil drainage and rapid and effectual removal of excreta, ventilation of dwellings, lighting of dwellings, pure drinking water, personal cleanliness, and increased avoidance of infection during the past ten or twenty years, have all to be considered as sanitary improvements. But these agencies do not affect all zymotic diseases similarly and to the same extent. The drainage of marshes causes the disappearance of malarial fevers. The cessation of

overcrowding in dark, ill-ventilated dwellings, and improvement in nutrition cause the disappearance of typhus fever. Proper methods of dealing with excreta prevent typhoid fever. In the case of small-pox there is no similar feature. No epidemic of small-pox has ever been shown to be specially connected with imperfect removal of excreta or other such causes. Like measles, it is not related to any particular sanitary measure, as distinguished from general sanitary conditions. Yet while measles remains, small-pox diminishes.

Age Incidence of Small-pox.

As regards the allegation that the decline in small-pox is largely due to isolation, the Commission point out in the first place "that it is only in recent years that there has been any systematic practice of isolating small-pox patients, and that it has been confined even then to a very limited number of localities." Moreover the decline in small-pox mortality has been mainly observable among children, while risk of contagion is not confined to children. This reference to children leads the Commission to a very instructive and interesting study of the whole subject of age incidence of small-pox. It is pointed out that Jenner was in error in supposing that vaccination gave lifelong immunity. In the eighteenth century adults were protected by previous small-pox, while children had no such protection. Small-pox, therefore, was mainly a disease of children, and in particular epidemics the mortality was confined almost entirely to the young. By the middle of the present century, with vaccination prevailing considerably, but not systematically practised in infancy, children under five years of age contributed rather less than seven-tenths of the small-pox deaths—677 deaths in every 1000. By 1870–1874 the contribution was reduced from seven-tenths to about three-tenths—312 deaths in every 1000; and in the period 1885–89, there was a further reduction to barely two-tenths—193 in every 1000. In the last five years, however (1890–94) with vaccination tending to fall into disuetude in some parts of the country, children have begun to contribute more largely to the total small-pox mortality, the figures being 283 deaths per 1000.

In Scotland the vaccination age is six months, and this fact furnishes a very interesting comparison. In the period 1855–1863 (the nine years prior to the Scottish Vaccination Act) children under six months of age had among them 139 of every 1000 small-pox deaths occurring at all ages. In the twenty-four years subsequent to the Vaccination Act their contribution was almost exactly similar, being 138 deaths per 1000. This was the section of the population unaffected by the Act. Turning to the second half year of life, the case is strikingly different. In the period 1855–63, or previous to the Scottish Vaccination Act, their contribution was 153 deaths per 1000, while in the next twenty-four years it was only 47 per 1000. Similarly, from one to five years of age the contribution in the earlier period was 413 deaths per 1000 and in the later 137 deaths.

Further, as regards age incidence, the Commission point out that information of special value is obtainable from inquiries made into six recent local epidemics of small-pox. These six epidemics occurred respectively in Warrington, Sheffield, London, Dewsbury, Gloucester, and Leicester. Now it is well known that these six populations show very great divergences in their vaccination. In Warrington and Sheffield there was little opposition to the vaccination laws and primary vaccination had been very well carried out. In London there had been considerable falling off in the amount of vaccination for some years prior to the small-pox outbreak of 1892–93, so that taking the years 1883–91 inclusive about 10 per cent. of children were unaccounted for as to vaccination. In the other three populations—Dewsbury, Gloucester, and Leicester—there had been great neglect of vaccination. In Dewsbury in the eleven years 1882–92 the percentage unaccounted for was 32·3, while in Gloucester the percentage ranged from 10·6 in 1885 to 85·1 in 1894, and in Leicester from 43·8 in 1883 to 80·1 in 1892. As to vaccination of children, therefore, Warrington and Sheffield were well vaccinated, Dewsbury, Gloucester, and Leicester were ill vaccinated, and London occupied an intermediate position. Bearing in mind these facts, the figures contained in the following table are specially significant:—

Percentage of the Total Small-pox Deaths Borne by those between the Age of 0–10.

Warrington	22·5
Sheffield	25·6
London	36·8
Dewsbury	51·8
Gloucester	64·5
Leicester	71·4*

* Or 66·6. (See Section 182.)

The argument from age incidence has often been advanced as showing the value of vaccination, and the best that could be suggested in reply was that possibly some altogether unknown influence other than vaccination might be at work and that small-pox might be shifting its attacks from childhood to adult life. Anti-vaccination, by getting its own way in Dewsbury and Gloucester and Leicester, has simply shattered this feeble defence. In Warrington and Sheffield, where primary vaccination prevailed among children, the children provided only a fourth or a fifth of the total small-pox deaths. In London, where vaccination of children had begun to be neglected, the children provided about 37 per cent. of the small-pox deaths; while in Dewsbury, Gloucester, and Leicester, where vaccination of children was neglected, their contribution was from 50 to 70 per cent. of the total deaths. In short, the differences in the children's share of small-pox correspond to the differences in the neglect of the children's vaccination.

The Fatality of Small-pox amongst Vaccinated and Unvaccinated.

A large amount of statistical evidence was placed before the Commission regarding the comparative death-rates of the vaccinated and unvaccinated when attacked by small-pox. In the six recent epidemics specially dealt with by the Commission this question of fatality receives much attention. Leaving out of consideration the lessening of the protective influence of vaccination which comes with advancing age, and stating the facts for all ages combined, it was found that in Sheffield, of 4151 vaccinated persons attacked by small-pox 200, or 4·8 per cent., died of the disease, and that of 552 unvaccinated persons 274, or 49·6 per cent., died, so that taking relative numbers there were 10·13 deaths among the unvaccinated for every death among the vaccinated. It accords with the doctrine of vacoination as now held by the profession that among children the difference should be even greater. Of 353 vaccinated children attacked under ten years old, 6, or 1·7 per cent, died; and of 228 unvaccinated, 100, or 43·9 per cent., died, so that, relative to their numbers, there were 25·8 unvaccinated deaths for every single vaccinated death. The Commission is of opinion that full allowance for possible errors in these figures does not modify the conclusion derivable from them. In the London outbreak of 1892–3, 110 vaccinated children under ten years old were attacked and none died, while of unvaccinated children 228 were attacked and 61 died, or 26·7 per cent. Over ten years of age there were 1643 attacks among the vaccinated with 39 deaths, or 2·3 per cent., and 181 attacks among the unvaccinated with 38 deaths, or 20·9 per cent. Thus, even over ten years of age, when vaccination has lost some of its protective influence, 181 attacks among the unvaccinated yielded almost the same number of deaths as resulted from 1643 attacks among the vaccinated. In preparing these figures Dr. Luff discarded all doubtful cases. In Dewsbury, of 44 vaccinated children attacked under ten years of age 1 died, or 2·2 per cent., and of 174 unvaccinated 56 died, or 32·1 per cent. In persons over ten years old 577 attacks among the vaccinated yielded 15 deaths, or 2·6 per cent., while among the unvaccinated 192 attacks yielded 36 deaths, or 18·7 per cent. These percentages come out in this fashion in spite of the fact that the vaccinated class was handicapped by the inclusion of all doubtful cases, while the unvaccinated class had any benefit that would result from including among them those described as "under vaccination"—in whom the operation had been performed, but only after the infection of small-pox was already in their blood. In Warrington of 33 vaccinated children attacked under ten years of age 2 died, or 6 per cent., and of 32 unvaccinated children 12 died, or 37·5 per cent.; while of 560 vaccinated persons attacked over ten years of age 36 died, or 6·4 per cent., and of 36 unvaccinated 12 died, or 33·3 per cent. In Leicester two vaccinated children under ten were attacked and both recovered, while 107 unvaccinated children were attacked, and 15, or 14 per cent., died. Over ten years old 197 vaccinated persons were attacked and 2 died, or 1 per cent.; while 51 unvaccinated were attacked and 4 died, or 7·8 per cent. At Gloucester 26

vaccinated children under ten were attacked and 1 died, or 3·8 per cent., while no less than 680 unvaccinated children were attacked and 279 died, or 41 per cent. Over ten years old 1185 vaccinated persons were attacked and 119, or 10 per cent., died, while of the unvaccinated 88 were attacked and 35 died, or 39·7 per cent.

With regard to these statistics of small-pox mortality among children in Dewsbury, Leicester, and Gloucester, the Commission has failed to note the fact that one argument frequently used by the opponents of vaccination falls to the ground. It is alleged that in places like Sheffield and Warrington, for example, where vaccination is well attended to, the unvaccinated residuum is largely made up of children who were certified to be unfit for vaccination owing to their weak health. In the three centres of anti-vaccination which are here dealt with this allegation cannot be made. In Dewsbury and Leicester and Gloucester prosecutions have long ceased and vaccination has been practically optional. Here, therefore, it cannot be urged that the unvaccinated were a weakly class. Indeed, seeing that it is commonly held by anti-vaccinationists that the protective operation itself is a cause of weakness in children, and of all kinds of debilitating diseases, then, from this point of view, the unvaccinated children in Dewsbury and Leicester and Gloucester should have had much greater resisting power against small-pox than the vaccinated children. The above figures show, however, that the reverse was the case. In spite of all the debility and all the diseases which vaccination can be alleged to produce, the vaccinated children in these towns had the merest fraction of a fatality rate from small-pox compared with the unvaccinated children whose blood, an anti-vaccinationist would say, was free from the poison of a filthy and artificial disease.

Looking at the fatality rates from the standpoint of anti-vaccination the Commission say: "If those who contend that vaccination is altogether inefficacious be correct in their views, the fact that persons have been vaccinated can have no tendency to affect their liability either to be attacked or to die of the disease. Those, therefore, who are selected as being vaccinated persons might just as well be so many persons chosen at random out of the total number attacked. So far as any connexion with the incidence of, or mortality from, small-pox is concerned, the choice of persons might as well have been made according to the colour of the clothes they wore. How comes it, then, that those selected out of the mass merely because, on the hypothesis we are considering, they have been the subjects of a wholly ineffectual or even mischievous proceeding should suffer from attacks of small-pox so much less fatally than the mass from which they were drawn?" Taking the six towns together, the number of unvaccinated persons attacked was 2321, of whom 822 died, or 35·4 per cent.; but the total mass of cases from which these were selected consisted of 11,065 attacks with 1283 deaths, or 11·5 per cent. "Deducting from the total numbers the attacks and deaths of those said to be unvaccinated the result is as follows:—2321 attacks and 822 deaths, or 35·4 per cent. fatality, as we have seen in the class said to be unvaccinated, and 8744 attacks with 461 deaths, or 5·2 per cent. fatality, in the rest of the population attacked by the disease." In children under ten the result is still more remarkable:—"The total number of this class attacked in the six towns was 2038, of whom 539 died, or 26·4 per cent.; 1449 of these are recorded as unvaccinated, of whom 523 died, or 36·0 per cent.; amongst the remaining 589 the number of deaths was 16 only, or 2·7 per cent." In cases where the age exceeded ten years 9001 were attacked, of whom 744 died, or 8·2 per cent.; of these 870 are classed as unvaccinated, of whom 299, or 34·3 per cent., died; deducting these from the total number the result shown is that of 8131 attacked, who had been vaccinated, 445, or 5·4 per cent., died. Referring to the contention that the unvaccinated are likely to include all deaths from small-pox under one or two months of age, and that at that age small-pox is a very fatal disease, the Commission makes fresh calculations by omitting, both from the vaccinated and the unvaccinated lists, all cases under one year of age. The result is that among vaccinated children between one and ten years old the attacks are 570 and the deaths 17, giving a fatality of 2·8 per cent., and among the unvaccinated, the attacks are 1235 and the deaths 375, giving a fatality of 30·3 per cent. Here again, however, the vaccinated are handicapped by the inclusion of all doubtful cases. "The doubtful cases in London alone account for 6 out of the 16 deaths, and raise the fatality from 1·8 to 2·8 per cent." It seems almost unnecessary to pursue this question further, the evidence is so overwhelming, yet the following passage may be quoted:—"Is the different fatality manifested in the two classes into which the children between the ages of one and ten years who were attacked by small-pox are thus divided according as they were or were not vaccinated, a mere freak of chance? It is scarcely possible to believe that it can be so. When it is found that the same contrast is exhibited on comparing the fatality among the classes of vaccinated and unvaccinated in each of the six towns with which we have been dealing, and even in different districts of Sheffield and Dewsbury, where a similar discrimination between the vaccinated and unvaccinated was made, and when it is borne in mind that both classes lived in the same towns, were of similar ages, and suffered in the same epidemics, it is impossible to believe that there was nothing to distinguish the two classes from one another."

Turning from the fatality rates as exhibited in the six towns the Commission proceeds to refer to the experience of fatality in small-pox hospitals. After a passing mention of Marson's well-known statistics they give the result of Dr. Gayton's examination of 10,403 cases at the Homerton Hospital. There the deaths among the vaccinated (including those said to be vaccinated but without marks) were 869 out of 8234, or 10·5 per cent., and amongst the unvaccinated 938 out of 2169, or 43·4 per cent. Mr. Sweeting produced statistics of 2153 cases at Fulham Hospital. Among the vaccinated (including as before those said to be vaccinated but without marks) the deaths were 263 out of 2226 cases, or 11·4 per cent. Eliminating the doubtful cases the fatality rate of the vaccinated at Homerton Hospital is reduced from 10·5 per cent. to 7·4 per cent. With regard to "the fact or alleged fact" that in the last century the fatality was much lower than in the unvaccinated in the present day, the Commission point out that the statistics of last century, which are relied on in this connexion do not establish a normal fatality for the pre-vaccination period, as there were great differences in the fatality rates of different epidemics. Similarly in recent epidemics, the fatality rates among the unvaccinated have differed very greatly even in the towns where vaccination was most neglected, the Leicester rate being 12 per cent, the Dewsbury rate 25·1 per cent., and the Gloucester rate 40·8 per cent.

Dealing with the suggestion that the explanation of the contrast in the fatality rates might consist in the unvaccinated belonging to the poorer and more neglected classes of the population it is pointed out that the facts as to Warrington, Dewsbury, Leicester, and Sheffield do not support this suggestion: in Warrington, for example, regarding which Dr. Savill reported, the Commission say: "It is expressly stated that the vaccinated and the unvaccinated were of the same class, and lived in the same houses and in the same manner." Similarly the cases admitted into Homerton and Fulham Hospitals were mostly, whether vaccinated or unvaccinated, drawn from the pauper class or that immediately above it.

With regard to this question of fatality the Commission has adduced such an amount of incontrovertible evidence that the reader gets almost weary of perusing it. A tithe of the proof adduced would be amply sufficient for any law court, but the Commission seems to have been determined to put on record a mass of statistics capable of convincing any mind, no matter how prejudiced, which might yet remain in any degree open to conviction. To a medical man engaged in a newspaper controversy on vaccination the statistics here provided should prove an inexhaustible mine of fact and argument.

THE JENNER MEMORIAL.

A WELL-ATTENDED meeting was held in the board room of St. George's Hospital on Monday for the purpose of promoting a national memorial to Dr. Edward Jenner. Sir Joseph Lister, Bart., President of the Royal Society, occupied the chair. Amongst others there were present the Lord Bishop of Rochester, Lord Reay, Lord Glenesk, Sir Richard Quain (President of the General Medical Council), Dr. Wilks (President of the Royal College of Physicians of London), Sir Joseph Fayrer, Professor Michael Foster, Professor Burdon Sanderson, Professor Clifford Allbutt, Mr. Jonathan

Hutchinson, Mr. Brudenell Carter, Dr. W. Howship Dickinson, Mr. Shirley Murphy, Dr. Glover, Dr. Wm. Ewart, Dr. Bond (Gloucester), Mr. Timothy Holmes, Dr. Theodore Acland, Dr. Lee Dickinson, &c.

Sir JOSEPH LISTER, after being voted into the chair, explained that the object of the meeting was to promote a national monument to Jenner. This being the centenary of the discovery was a fitting time to initiate such a movement, and it was fitting that it should begin in St. George's Hospital, of which Jenner was a pupil. The present position of the monument of Jenner was not satisfactory, and there was much to be said for removing it to a position opposite the hospital. The essential thing was that it should be thoroughly national.

The Bishop of ROCHESTER proposed the first resolution:

"That the present year being the centenary of the first successful vaccination is an appropriate time to inaugurate a work of national utility in honour of Edward Jenner."

His lordship, with much diffidence, suggested that the reason he was put forward in such a company to move the first resolution was to show that the work of honouring Jenner was not to be left to medical men alone, but was to be shared by other representatives of the race which he benefited. And he thought this a cause in which the clerical and medical profession might well combine in joint imitation of Him who was both healer and pastor. It was well for a nation to have such citizens as Jenner and well for it to recognise and make much of them. The existence of great misery and suffering forced itself on our mind, and to keep the mental balance it was necessary to place alongside of them the great discoveries which tended to mitigate and remove them.

Lord REAY, as connected with University College and the University of St. Andrews (of which Dr. Edward Jenner was a graduate), was glad to take part in the movement and to testify to the immense benefit to millions of the work of Jenner. Nothing could exaggerate the work of the public vaccinator in India. Politicians did not find the question of public vaccination altogether easy, but he thought it clear that it was the duty of every Government to protect those who were not able to protect themselves—as children. It was painful at the end of the nineteenth century to have to argue such a point. He seconded the motion.

Sir RICHARD QUAIN supported the resolution. In doing so he said it was rare now to meet with a pock-marked man, so completely had Jenner's discovery effected its object. He thought the use of calf lymph met all real objection of those who feared the conveyance of other disease than vaccinia.

Dr. MICHAEL FOSTER also supported the resolution. He said that if people did not believe in vaccination neither would they believe though one rose from the dead. He spoke chiefly of Jenner himself. It was difficult to estimate the work of a scientific man. The difficulty was increased in Jenner's case by a somewhat inflated biography. Great discoveries passed through several stages—first, resistance, then excessive reception, then rejection, and finally an established place and recognition. It was of no slight significance that Jenner was the friend of John Hunter, *the* man of the *end of* the eighteenth century whose ideas were the most interesting and fruitful. No one can read carefully the works of Jenner without seeing that he had a speculative side as well as a practical one. He (Dr. Michael Foster) began the study of vaccination with an open mind, but somewhat of an iconoclast. In most controversies there was much muddy water, but in Jenner's case the water was clear and the ground firm. His fundamental ideas of the relation of horse-grease to vaccinia and of variola and vaccinia, if not established, were receiving confirmation. His conception was a great philosophic one, not changed, but enlarged by the work of Pasteur and Lister.

Lord GLENESK thought Jenner's work would never be forgotten, but the best compliment we could pay it was to labour to carry out on the largest scale the vaccination which he introduced. He moved the second resolution:—

"That a subscription be set on foot with the view of founding some institution of a nature to be hereafter determined in connexion with the British Institute of Preventive Medicine to be distinguished by Jenner's name."

Dr. WILKS, in supporting the resolution, said that every civilised country in the world had accepted this discovery. We alone had no great national monument. He showed that the anti-vaccinationists were resisting much more than vaccination: they were opposing all the kindred discoveries in medicine of the end of the nineteenth century which were the outcome and continuation of Jenner's work. Jenner attained his success not by scientific methods so much as by sound observation and reasoning. He saw that he was giving a modified and mitigated small-pox, carrying with it the advantage of immunity from further attacks.

Professor BURDON SANDERSON, in supporting the resolution, expressed his sympathy with all that had been said of Jenner and traced the links between the Jennerian discovery and the work of the British Institute of Preventive Medicine. Jenner was the real discoverer of the immune condition that had been developed by Pasteur, Koch, Lister, and others. In spite of that dark day when Koch's tuberculin was shown to have failed the principle was receiving ever new illustrations in the discovery of successive antitoxins as that of diphtheria and tetanus, which had saved thousands of lives. Medicine was now in a position it had never been in before and things were coming to light not dreamt of fifteen years ago. The great thing was to get the public to see the drift of medical discovery.

Mr. JONATHAN HUTCHINSON, in supporting the resolution, expressed a doubt as to whether the public was sufficiently trained for us to associate this movement in honour of Jenner with the investigations of the British Institute of Preventive Medicine. He was disposed to think that the Jenner Memorial had better stand on its own merits and that it would be better to put Jenner forward as a model and encouragement to general practitioners—a man living in a remote country town, away from the advantages of scientific associations, using his good, sound faculties without the means of scientific experiment. Mr. Hutchinson spoke strongly as to the real meaning of any apparent compromise in the Vaccination Report. The shape given to the report—save as respects two members of the Commission—was dictated by the strongest opinion of the importance of vaccination, supporting fully Jenner's views of the efficacy of the process, with only this qualification, that the operation needed repetition. The vindication of vaccination came out fully. There was no misgiving whatever on this important point.

Dr. BOND (Gloucester), in supporting the resolution, referred to the recent object lesson afforded by the Gloucester epidemic and to the effort now being made in Gloucester to do honour to Jenner. He expressed the willingness of his colleagues to work in connexion with this movement if that were desirable. He referred to the mischievous work of agitators and pointed out the necessity of doing something to counteract this work. A great missionary work had to be done. In spite of the object lesson they had had at Gloucester the agitators were still at work. The most important thing was to secure a well-vaccinated population.

Dr. GLOVER also pressed this point and urged the use of means to promote popular knowledge and intelligence on this subject. In board schools something might be done. The history of England could not be taught without the history of small-pox epidemics, which had been fatal to the people and to powerful individuals. With this should be taught the history of Jenner's great discovery and its results. The influence of popular lectures and literature might be used for as well as against vaccination. He hoped the committee would consider means for counteracting the prejudice and ignorance on this subject.

The resolution was passed.

Professor CLIFFORD ALLBUTT moved "That a public meeting be called early in 1897 to consider the resolutions passed at this meeting and to finally decide the form of the memorial." He urged that the memorial should involve means of carrying on research.

The motion was seconded by Mr. BRUDENELL CARTER and agreed to.

Lord CLIFDEN moved and Mr. TIMOTHY HOLMES seconded that the following noblemen and gentlemen be invited to join the committee:—His Grace the Duke of Westminster, K.G., the Earl of Cork and Orrery, K.P., the Lord Bishop of Rochester, the Very Reverend the Dean of Westminster, His Eminence Cardinal Vaughan, Lord Reay, Lord Rayleigh, Lord Glenesk, Lord Loch, G.C.B., Lord Herschell, Sir Henry Acland, Bart., K.C.B., Sir John Simon, Professor Clifford Allbutt, Dr. Francis Bond, Sir William Broadbent, Bart., Mr. H. T. Butlin, Dr. Champneys, Dr. Howship Dickinson, Sir Joseph Fayrer, Bart., Professor Michael Foster, Professor Gairdner, Sir Edwin Galsworthy, Mr Frederic Harrison, Dr. Alexander Hill, Mr. Jonathan Hutchinson, Surgeon-Major-General

Jameson, Sir Trevor Lawrence, Bart., Sir Joseph Lister, Bart., Sir Alfred Lyall, K.C.B., Dr. Sidney Martin, Mr. Shirley F. Murphy, Professor Lane Notter, Dr. William Ogle, Sir James Paget, Bart., Dr. Pye-Smith, Sir Richard Quain, Bart., Professor Burdon Sanderson, Dr. Thorne Thorne, C.B., Dr. Wilks, Dr. Coupland, Dr. Copeman, and Dr. Glover.

JENNER MEMORIAL MEDAL FUND.[1]

WE have been requested by the hon. treasurer of the Epidemiological Society to publish the second list of subscribers to the above fund and to state that the subscription list will close at the end of the year. Subscriptions (limited to one guinea) may be sent to the hon. treasurer, Dr. Sweeting, 6, Hereford-mansions, Bayswater, W.

	£	s.	d.
Sir William Broadbent, Bart.	1	1	0
Dr. Claremont	1	1	0
Mr. Bolton Corney (Fiji)	0	10	0
Dr. Goodall...	1	1	0
Mr. E. Hibberd	0	10	6
Dr. W. F. Hingston... ...	0	10	6
The President of the Epidemiological Society (Dr. J. Lane Notter) ...	1	1	0
Sir James Paget, Bart. ...	1	1	0
Mr. W. G. Rowntree ...	0	10	6
Dr. Sansom...	1	1	0
Sir Edwin Saunders ...	1	1	0
Dr. Edward Seaton	1	1	0
Dr. Williams (Penarth) ...	0	10	6
	£11	0	0
Amount previously acknowledged	£52	18	8
Total	£63	18	8

THE PROFESSORSHIP OF SURGERY IN CAMBRIDGE UNIVERSITY.

THE General Board of Studies have published the following report on the Professorship of Surgery:—"Since their report, dated Oct. 21st, 1896 (*Reporter*, p. 150), on the stipend of the Professor of Surgery was discussed on Oct. 29th information has been laid before the board which has led them to modify the recommendation they had made to the Senate. In the opinion of some persons well qualified to judge the conditions at present affecting the Professorship of Surgery are such as to limit seriously the choice of the electors. Thus Sir Joseph Lister writes under date Nov. 2nd, 1896: 'In my opinion the absence of a definite prospect of a hospital appointment would be fatal to the chance of obtaining a really able first-class London man to fill the chair of Surgery at Cambridge. Without a public field for the exercise of his art and the illustration of his doctrine no man who had the love of surgery and its teaching at heart could, I conceive, accept the position notwithstanding the immense privileges, both intellectual and social, which a connexion with the University offers. Both in Edinburgh and in Glasgow, while the hospitals are under perfectly independent management, they have long since recognised the paramount importance of providing beds for the professors of the practical chairs of the universities concerned. As a sincere well-wisher of the Medical School of Cambridge I venture to express the earnest hope that the work so nobly begun by Humphry may not be checked for want of this necessary arrangement.' The views of other eminent surgeons as to the paramount importance of securing to the Professor of Surgery beds in a hospital have also been before the Board. Accordingly, on Nov. 13th, 1896, the General Board passed the following resolution: 'That in view of the desirability of an official connexion between the Professor of Surgery and a hospital the General Board recommend that the election of a person to fill the professorship be suspended for one year in order to enable measures to be taken for the purpose of bringing about such a connexion.' At the same time the board desire to state that they do not in any way retract the views expressed in their previous report as to the importance of maintaining and endowing the Professorship of Surgery, and they may add that the further opinions they have received tend strongly to confirm their views. The General Board of Studies therefore recommend: 'That the Professorship of Surgery, established by Grace 14 of May 10th, 1883, and suspended by Grace 6 of Nov. 12th, 1896, until Jan. 8th, 1897, be further suspended until Jan. 1st, 1898.'"

This report was discussed by the Senate on Dec. 3rd, and it at once appeared that marked difference of opinion existed even among members of the General Board as to the necessity and expediency of the proposed suspension. It appeared that Sir Joseph Lister's letter was addressed to Professor Foster, who is one of the electors to the chair, but the other electors and the Special Board for Medicine had not been consulted by the General Board. It was, moreover, stated that other weighty opinions, including that of Mr. Jonathan Hutchinson, had been submitted to the board to the effect that a sufficient choice of good candidates might be expected for the professorships notwithstanding the absence of an official position on the hospital staff; but no reference was made to these opinions in the report. The change in the Board's policy had been carried by a narrow majority, and the Vice-Chancellor had been unable to agree with it and declined to sign the report. It was strongly urged that in view of the recent amicable arrangement with the governors of the hospital, whereby the professors of physic and surgery were admitted as clinical lecturers, it was very undesirable to start a fresh agitation on the subject. The only courses open seemed to be either to procure a new private Act of Parliament for the government of the hospital, whereby the University professors might *ex-officio* be made members of the staff, or to raise a large sum of money for the building of new University wards. Neither of these projects could be carried out in one year, and accordingly the proposed suspension would have to be continued indefinitely, to the detriment of the surgical department and of the medical school generally. It was maintained that under present arrangements the students are adequately taught their clinical subjects by the staff of the hospital, and that until a vacancy on the staff occurred the professor would be well occupied in teaching the principles of surgery, including surgical anatomy and pathology, in conducting the examinations for surgical degrees, and in advancing the scientific side of his subject by research. Opinions were, however, so divided that the only available solution was to offer the report for confirmation by the Senate, when a vote of the graduates would decide the question one way or the other.

As we go to press we learn that the graduates on Thursday afternoon, by a vote of 141 to 73, carried the proposal for suspension.

THE VACCINE FARMS IN THE UNITED STATES.

THE report of the Royal Commission on Vaccination renders it probable that the system of vaccination administration which at present obtains will undergo modifications. At the present moment the supply of this lymph which is furnished by the State is quite inadequate to meet any such demands as are likely to be made upon it if the recommendations of the Commission in this particular are accepted and acted upon by the Government; and, although there are numerous private establishments for the supply of calf-lymph, it is clear that lymph if used with the authority of the State must be produced under conditions which are approved by its officials. Under these circumstances it will be of interest to briefly draw attention to the manner in which calf-lymph is procured in countries other than our own, and a report in a recent number of the American *Public Health* affords matter for some comments on the American system. The report in question is from the pen of Dr. Robert Pitfield, assistant bacteriologist to the State Board of Health of Pennsylvania, but this gentleman was accompanied by one or another veterinary surgeon during his inspection of the farms. In addition to the inspection of these places bacteriological examination was made of numerous lymph specimens which were procured in the open market. The results of these examinations showed that in the case of dry-points the number of bacteria which could be grown upon gelatin was enormously in excess of the number grown from fluid lymph, and it was found, as was to be expected that the number of bacteria depended largely upon the age of the lymph and the quantity of glycerine added. It was, indeed, ascertained that if a quantity of fresh lymph was mixed

[1] Vide THE LANCET, Oct. 3rd, 1896.

with glycerine that the number of bacteria diminished from day to day until the organisms were narrowed down to one or two hardy varieties. Dr. Pitfield does not state whether lymph containing only these few bacteria was still potent for the production of vaccinia; but we infer from the valuable work which has been done in this country by Dr. Copeman of the Local Government Board that the lymph was still thus potent; in fact, Dr. Copeman's work, as was pointed out in the report of the Royal Commission, holds out promise of much utility, as by means of storing lymph with a certain percentage of glycerine we may make sure of getting rid of many of the extraneous organisms which are liable to be found in the freshly gathered fluids. To revert, however, to the inspection of the United States vaccine farm. At each place visited regard was had to numerous important points, such, for instance, as the elimination of diseased animals from healthy, the cubic space, ventilation, and drainage of the incubating stables, the character and cleanliness of the operating-tables, the means of excluding flies, the condition of the animals operated upon, their food, the points selected for scarification and the methods of scarification, and, generally, the cleansing and disinfecting methods that were adopted. Although, perhaps, in some particulars. Dr Pitfield's requirements are rather counsels of theoretical perfection it cannot be said that the report is one which speaks well for the precautions generally adopted in America. We read, for instance, that in only two of the stations visited were the animals tested with tuberculin before being inoculated, and in two only were the animals killed and examined before the lymph was sold. Dr. Pitfield thinks, too, that sufficient care was not, as a rule, exercised against the possibility of infecting the points with anthrax, malignant œdema, and tetanus. He deprecates the practice of storing hay in the incubating stables, owing to the risks of the air becoming contaminated with germs contained in the hay. He further tells us that in many places simple cleanliness is sadly neglected, while in others aseptic methods are observed. At some places it was found that the sale of vaccine crusts was common, a practice which Dr. Pitfield objects to owing to the extraneous organisms which such crusts are apt to contain. On reference to the detailed report it is seen that Dr. Pitfield's strictures are by no means too severe, as we read in one instance that "the animal rests upon a filthy manure-smeared tick" and that "the principles of simple cleanliness are totally ignored." In another case we are told "that no provision is made to ensure that the lymph applied to the points is free from infectious matter." On the other hand, however, we are glad to see some establishments referred to as admirable in every particular, that the animals are duly examined and that the product yields excellent bacteriological results. Obviously control and supervision over all these establishments is needed, and the inspection which has been made will doubtless awaken the proprietors of them to a better appreciation of modern surgical methods. The demand for a theoretical asepsis may doubtless at times be difficult of satisfaction, but at the same time it may reasonably be expected that lymph should be collected under conditions which are as cleanly as possible.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Durham County Sanitary District.—The annual report of Dr. Eustace Hill, the medical officer of health for this district, contains much of interest. The general birth-rate of the administrative county was 36·3 per 1000, an increase of 2·3 per 1000 on the rate of 1894. The urban rate was 34·6 (the boroughs alone, 32·1) the rural rate, 38·0. The rate for England and Wales for the same period was 30·3 per 1000. The general death-rate was 19·2 per 1000—i.e., 2·0 per 1000 higher than in 1894, the urban and rural rates being nearly equal. The excess of mortality as compared with 1894 is attributed mainly to the increased number of deaths among children under five years of age, and to the prevalence of diarrhœal affections during August and September. The infantile mortality was, Dr. Hill observes, a very unsatisfactory element in the year's statistics, it having amounted to 179 per 1000 births, as against 149 in 1894. It is of interest to observe that in the boroughs this rate was 169 and that of the other urban districts 198. The zymotic death-rate was 2·69 per 1000, as against one of 2·14 for the country generally. In connexion with the zymotic death-rate Dr. Hill points out that at times the district medical officers of health have omitted diarrhœa from their calculations and in others included puerperal fever and erysipelas. In respect of scarlet fever Dr. Hill states that in many districts of the country the disease is regarded with indifference by the people and that it is extremely difficult to induce the parents to allow their children to be removed to hospital. He adds, however, that a good deal of the repugnance is due to the existence of unattractive hospitals. The county of Durham presents an interesting study in the matter of enteric fever. During 1895 it "again attained the distinction of having a higher death-rate from typhoid fever than any other county in the country." The death-rate from this disease was 0·37 per 1000, as against a rate of 0·17 for England and Wales as a whole. It does not seem easy to arrive at a satisfactory solution as to the cause of this excessive prevalence of enteric fever in the county. During 1895 the pollution of local water-supplies seemed to have been responsible for some cases, while in others emanations from defective sewers are accredited with the blame. It appears, however, that the method of excrement disposal by uncovered midden privies has in nearly every district come under grave suspicion. Another point of interest in the enteric fever in Durham is the abnormal type of the disease. It presents, we are told by Dr. Squance, many of the clinical aspects of typhus fever. Diarrhœa was also extremely prevalent in Durham in 1895, the death-rate having been 1·20 per 1000 as against 0·88 per 1000 for England and Wales. Dr. Hill thinks that general insanitary conditions, such as polluted subsoil, &c., and maternal neglect were in the main responsible for it. Dr. Squance has noted that outbreaks of enteric fever have generally occurred in the month following the outbreak of diarrhœa—a fact which, as he points out, indicates an intimate relationship between the two.

Chester County Sanitary District.—Mr. Francis Vacher reports that the death-rate of this administrative county for 1895 was 17·8 per 1000, the rates for the different districts varying considerably. The infantile mortality ranged from 247 per 1000 births in Stalybridge to but 25 per 1000 in Higher Bebington. Mr. Vacher thinks that the high infantile mortality which obtained in the country generally may have been due in part to the effect of the depressed state of trade upon the food-supply of mothers and infants. As supporting the view that the employment of women in factories is prejudicial to infant vitality, Mr. Vacher records the fact that such labour is common in those localities of the county where infantile mortality is high. It would follow from the above considerations that bad and good trade are alike, under certain conditions, disastrous to infant life. Mr. Vacher is not inclined to think that much good would result from the notification of measles, inasmuch as the disease is not known to be spread by such agents as milk, water, or sewer-gas. The bestowal of a little more care on each child attacked would, he observes, reduce enormously the mortality of this disease. Dr. W. N. Thursfield records, Mr. Vacher tells us, two very interesting outbreaks of scarlet fever in which the evidence pointed to an eruption on the teats and udders of cows as having been the cause. There were 22 outbreaks of rabies in the county during 1895, and two persons who were bitten were sent to the Pasteur Institute in Paris. A case of hydrophobia which ended fatally occurred at Winsford; the patient was bitten on April 20th and died on May 15th. The dog which inflicted the bite, and which had in the meantime been destroyed, was exhumed and pronounced after due examination to have suffered from rabies. Mr. Vacher discusses in his report under separate headings all the subjects which relate to the public health, and he sets forth the provisions of the "adoptive" acts, referring to the extent to which such acts are made use of or neglected. House-to-house inspection is not, Mr. Vacher reports, carried on as well as it might be in the county, and the subject of unsound meat, &c., is only referred to in five reports. "Either," he observes, "there is practically no trade in unsound meat, &c., in this large county or the trade is not interfered with." Certainly Mr. Vacher's very complete report should do much to stimulate the public health conscience in the county.

Bristol Urban District.—The population of Bristol

estimated to the middle of 1895 is 228,139, but Dr. D. S. Davies observes that since the last extension of boundaries the population has so overgrown that Bristol proper forms but a part of a larger Bristol which embraces other urban districts. During the year now under notice Dr. Davies and Dr. Dowson (the assistant medical officer of health) made a special report to the sanitary committee on slaughter-houses in which they state that more than 50 per cent. of the present slaughter-houses are unsatisfactory, and that the scattered situation of such places renders effectual supervision impracticable. They advised the erection of an abattoir, and we are glad to learn that on receiving the report the sanitary committee practically adopted it and recommended that the borough engineer should obtain particulars as to the abattoirs of other towns. Bristol is now well on the way to be provided with admirable isolation accommodation both for small-pox and other infectious diseases, and it seems as if the city will soon be able to furnish accommodation both for itself and some of the neighbouring authorities. Dr. Dowson makes a special report on the bacteriological examination of the diphtheria cases and on the distribution of the disease in Bristol. Out of 87 cases submitted to bacteriological examination, 70 were found to possess the typical bacillus, and these figures receive additional interest from the fact that 27 of the 70 were in the first instance "suspected cases" only. It has been decided for the future, however, only to examine such cases as have been notified, as it is pointed out that the intention of the examination is not to make but to confirm diagnosis. It is also urged that one of the best means to which the opportunities afforded can be put is the examination of the throats of patients about to be discharged from isolation. The distribution of diphtheria in Bristol is a peculiar and interesting one. In the central and older parts the number of cases has remained—for the last six years at least — practically stationary, while during the same period it has progressively increased in the non-central or peripheral districts. Dr. Dowson dealt exhaustively with this subject in a paper which he read before the Epidemiological Society of London, and the paper will be found in the current volume of the Transactions.

Brighton Urban Sanitary District.—Dr. Arthur Newsholme in his current annual report refers to a group of four cases of small-pox which apparently originated in a patient who had been recently discharged from a London small-pox hospital. Two of the cases were of charwomen who had been engaged in mending carpets in the room occupied by the discharged patient. It is interesting to observe that shortly after his arrival in Brighton the patient in question had "a few spots on his forehead," and Dr. Newsholme suggests the possibility of their having been variola. As, however, he observes, it is improbable that these were the papules of that disease, assuming that the patient had small-pox in the first instance. One of the charwomen had been visited by two friends prior to her disease being notified. Both these friends subsequently developed small-pox, but owing to the care taken in visiting the persons daily after exposure they were at once isolated on showing signs of the disease; no further cases occurred. In reference to diphtheria Dr. Newsholme reports that in a certain locality there has been much illness amongst cats, many of which have been found dead. The symptoms consisted of difficulty in swallowing, discharge from the nose, cough, and retching. Dr. Newsholme has, he states, the strongest reason for believing that a number of children acquired diphtheria from these cats.

Huddersfield Urban Sanitary District.—The county borough of Huddersfield continued during 1895 to maintain relatively the honourable position which it occupies amongst the thirty-three large towns. Its general death-rate, 16·9 per 1000, was the lowest but two, while its zymotic death-rate, 1·2 per 1000, was quite the lowest. In the matter of infantile mortality it shared the second place with Halifax, Croydon with a rate of 134 per 1000 births being easily first. The position of Huddersfield in the matter of birth-rate is, as Dr. J. Kaye remarks, worthy of note. Since 1873 the rate has been declining, and in 1895 it was the lowest of all thirty-three towns—i.e., 21·7 per 1000. We are glad to see that the marriage-rate shows signs of improvement. In referring to the progress of sanitation in the borough Dr. Kaye points out how great would be the assistance to the officers of the corporation were each house-owner compelled to possess a plan of the drainage of the premises.

The City of London Sanitary District.—Dr. Sedgwick Saunders estimates the Day Census of the city for June, 1895, at about 319,970, and he recalls the fact that the Day Census which was taken by the Corporation of London in May, 1891, showed that 1,186,000 persons and 92,000 vehicles entered and left the City on the day of enumeration. The Night population of the City for 1895 is estimated at 33,823, and if the decrease which was manifest during 1871-80 continues during the present decade it is estimated that the population for 1901 will be but 28,357. The general death-rate of the City during 1895 was 18·3 per 1000, as against a rate of 19·4 for the metropolis as a whole. Of the deaths registered in the City 10·1 per cent. were due to violence in some form or other. The birth-rate of the City for 1895 was but 16·3 per 1000, that for St. Martin's-in-the-Fields being 14·0, and for St. Luke's 46·8. The death-rate in the Artizans' Dwellings in Houndsditch was 12·1 per 1000, the infantile mortality 102 per 1000 births. The birth-rate in these dwellings is no less than 45·9 per 1000, as against 16·3 for the City and 30·5 for London. During the year under review Dr. Saunders, owing to the congested state of the Asylums Board Hospitals, sent round a circular to the large employers impressing upon them the necessity of providing some sort of temporary accommodation for cases of infectious disease occurring amongst their employés. It appears to us that Dr. Saunders gives very good advice, and that in all large establishments, whether or not the fever hospitals be full, there should be some accommodation for cases of infectious disease pending their removal to hospital or to their homes. Among the unsound food condemned during 1895 we note baskets of bilberries from Amsterdam, onions from Egypt, and ox-tongues from Russia. There were also no fewer than 3100 tins of sardines condemned. The temporary shelter recently acquired by the corporation seems to have been already well patronised, 28 families, comprising 79 persons, having been accommodated in it during the year. Australian and Ostend rabbits appear again to have given much trouble to the officers of the corporation both on account of the onerous task of inspecting them all carefully and the difficulty of removing those which are unsound without inconvenience to the public. On one occasion several tons of Ostend rabbits were found in a putrid condition, and on another no less than 26,150 rabbits were seized as unfit for food. The Australian rabbits arrived frozen, but during transit in this country they appear to rapidly undergo decomposition. The Ostend rabbits, which are bred in hutches for the English market, arrived here skinned and gutted.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns 6065 births and 4041 deaths were registered during the week ending Dec. 5th. The annual rate of mortality in these towns, which had been 21·3 and 19·3 per 1000 in the two preceding weeks, rose again last week to 19·4. In London the rate was equal to 18·9 per 1000, while it averaged 19·8 in the thirty-two provincial towns. The lowest rates in these towns were 12·4 in West Ham, 13·4 in Portsmouth, 16·0 in Sunderland, and 16·9 in Bolton; the highest rates were 24·3 in Birkenhead, 24·6 in Liverpool, 28·0 in Swansea, and 28·3 in Plymouth. The 4041 deaths included 365 which were referred to the principal zymotic diseases, against 364 and 367 in the two preceding weeks; of these, 87 resulted from diphtheria, 80 from measles, 71 from whooping-cough, 57 from scarlet fever, 35 from diarrhœa, and 33 from "fever" (principally enteric). The lowest death-rates from these diseases were recorded in Swansea, Norwich, West Ham, and Sunderland; and the highest rates in Birmingham, Nottingham, Birkenhead, and Gateshead. The greatest mortality from measles occurred in Halifax, Nottingham, Newcastle-upon-Tyne, Plymouth, Gateshead, and Bradford; from scarlet fever in Leicester and Birkenhead; from whooping-cough in Nottingham, Huddersfield, and Birkenhead; and from diarrhœa in Burnley and Blackburn. The mortality from "fever" showed no marked excess in any of the large towns. The 87 deaths from diphtheria included 60 in London, 9 in Birmingham, 4 in Manchester, and 3 in Oldham. No fatal case of small-pox was registered in any of the thirty-three large towns. There was only 1 case of small-pox under treatment in the Metropolitan

Asylum Hospitals on Saturday last, the 5th inst., and no new cases were admitted during the week. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 3989, against numbers declining from 4164 to 4030 on the six preceding Saturdays; 350 new cases were admitted during the week, against 362, 398, and 333 in the three preceding weeks. The deaths referred to diseases of the respiratory organs in London, which had declined from 492 to 435 in the three preceding weeks, further fell to 374 last week, and were 68 below the corrected average. The causes of 60, or 1·5 per cent., of the deaths in the thirty-three towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in West Ham, Portsmouth, Bristol, Leeds, and in 11 other smaller towns; the largest proportions of uncertified deaths were registered in Birmingham, Nottingham, Bradford, Hull, and Sunderland.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had declined in the three preceding weeks from 23·5 to 20·3 per 1000, rose again to 20·4 during the week ending Dec. 5th, and was 1·0 per 1000 above the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 15·2 in Greenock and 18·1 in Edinburgh to 24·1 in Aberdeen and 27·4 in Perth. The 596 deaths in these towns included 40 which were referred to measles, 9 to whooping-cough, 12 to diarrhœa, 6 to scarlet fever, 3 to "fever," and 9 to diphtheria. In all, 79 deaths resulted from these principal zymotic diseases, against 76 and 81 in the two preceding weeks. These 79 deaths were equal to an annual rate of 2·7 per 1000, which was 0·9 above the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of measles, which had been 37 and 33 in the two preceding weeks, rose again to 40 last week, of which 37 occurred in Glasgow. The 9 deaths referred to whooping-cough corresponded with the number recorded in the preceding week, and included 7 in Glasgow. The fatal cases of scarlet fever, which had been 7 in each of the two preceding weeks, declined to 6 last week, of which 4 occurred in Glasgow. The deaths referred to different forms of "fever," which had been 4 and 8 in the two preceding weeks, declined again to 3 last week, of which 2 occurred in Dundee. Of the 9 fatal cases of diphtheria 3 were recorded in Glasgow and 3 in Dundee. The deaths from diseases of the respiratory organs in these towns, which had been 172 and 146 in the two preceding weeks, were 147 last week, and were 15 above the number in the corresponding period of last year. The causes of 47, or nearly 8 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 29·5 and 31·6 per 1000 in the two preceding weeks, declined again to 29·5 during the week ending Dec. 5th. During the past ten weeks of the current quarter the rate of mortality in the city has averaged 26·2 per 1000, the rate during the same period being 18·2 in London and 17·1 in Edinburgh. The 198 deaths registered in Dublin during the week under notice showed a decline of 14 from the number in the preceding week, and included 16 which were referred to the principal zymotic diseases; of these, 7 resulted from whooping-cough, 5 from "fever," and 4 from scarlet fever, but not one either from small-pox, measles, diphtheria or diarrhœa. These 16 deaths were equal to an annual rate of 2·4 per 1000, the zymotic death-rate during the same period being 1·6 in London and 0·4 in Edinburgh. The fatal cases of whooping-cough, which had been 3 and 7 in the two preceding weeks, were again 7 last week. The deaths referred to different forms of "fever," which had been 3 and 2 in the two preceding weeks, rose again to 5 last week. The fatal cases of scarlet fever, which had been 7 and 5 in the two preceding weeks, further declined to 4 last week. The 198 deaths in Dublin last week included 41 of infants under one year of age, and 46 of persons aged upwards of sixty years; the deaths of infants showed a slight further increase, while those of elderly persons were below those recorded in recent weeks. Six inquest cases and 5 deaths from violence were registered; and 68, or more than a third, of the deaths occurred in public institutions. The causes of 17, or nearly 9 per cent., of the deaths in the city last week were not certified.

VITAL STATISTICS OF LONDON DURING NOVEMBER, 1896.

In the accompanying table will be found summarised complete statistics relating to sickness and mortality during November in each of the forty-three sanitary areas of London. With regard to the notified cases of infectious disease in the metropolis during last month, it appears that the number of persons reported to be suffering from one or other of the nine diseases specified in the table was equal to 12·6 per 1000 of the population, estimated at 4,421,955 persons in the middle of this year. In the three preceding months the rates had been 13·1, 14·5, and 14·6 per 1000 respectively. Among the various sanitary areas the rates were considerably below the average in St. George Hanover-square, St. James Westminster, Strand, Holborn, City of London, and Lee; while they showed the largest excess in Chelsea, St. Martin-in-the-Fields, Clerkenwell, St. Luke Shoreditch, St. Saviour Southwark, and St. Olave Southwark. No case of small-pox was notified in London during November, the cases having declined from 41 to 2 in the five preceding months. There was only one case of small-pox under treatment in the Metropolitan Asylum Hospitals at the end of November, against 12, 4, and 2 at the end of the three preceding months; no new case was admitted during the month. The prevalence of scarlet-fever in London showed a marked decline from that recorded in recent months; this disease was proportionally most prevalent in Fulham, St. Martin-in-the-Fields, St. Luke, Bethnal Green, St. Saviour Southwark, Battersea, Wandsworth, and Greenwich sanitary areas. The Metropolitan Asylum Hospitals contained 3932 scarlet fever patients at the end of November, against 3348, 3847, and 4054 at the end of the three preceding months; the weekly admissions averaged 356, against 362, 412, and 398 in the three preceding months. The prevalence of diphtheria in London showed a slight decline from that recorded in the preceding month; among the various sanitary areas this disease showed the highest proportional prevalence in Chelsea, Hackney, Shoreditch, Limehouse, St. Saviour Southwark, St. Olave Southwark, Camberwell, and Lewisham. There were 777 diphtheria patients under treatment in the Metropolitan Asylum Hospitals at the end of November, against 688, 774, and 780 at the end of the three preceding months; the weekly admissions averaged 110, against 89, 116, and 105 in the three preceding months. The prevalence of enteric fever in London showed a slight further decline from that recorded in recent months; this disease was proportionally most prevalent in Paddington, St. George Hanover-square, Hampstead, Holborn, Poplar, and St. George Southwark sanitary areas. Erysipelas showed the highest proportional prevalence in Marylebone, St. Giles, Clerkenwell, St. Luke, and Whitechapel sanitary areas. The 27 cases of puerperal fever notified during November included 7 in St. Pancras and 5 in Islington sanitary areas.

The mortality statistics in the table relate to the deaths of persons actually belonging to the various sanitary areas, the deaths occurring in the institutions of London having been distributed among the various sanitary areas in which the patients had previously resided. During the four weeks ending Saturday, Nov. 28th, the deaths of 6521 persons belonging to London were registered, equal to an annual rate of 19·2 per 1000, against 18·0, 14·5, and 16·5 per 1000 in the three preceding months. The lowest death-rates during November in the various sanitary areas were 12·0 in Hampstead, 14·5 in Lee, 14·6 in Wandsworth, 15·1 in Stoke Newington, 15·2 in Paddington, and 15·8 in City of London; the highest rates were 25·4 in Clerkenwell, 26·1 in Holborn, 27·0 in St. George Southwark, 29·2 in St. Luke, 31·2 in Strand, and 32·4 in Limehouse. During the four weeks of November 531 deaths were referred to the principal zymotic diseases in London; of these, 217 resulted from diphtheria, 77 from scarlet fever, 67 from whooping-cough, 66 from enteric fever, 61 from measles, and 43 from diarrhœa. These 531 deaths were equal to an annual rate of 1·6 per 1000; no death from any of these diseases occurred last month in St. Martin-in-the-Fields; among the other sanitary areas the lowest death-rates from

ANALYSIS OF SICKNESS AND MORTALITY STATISTICS IN LONDON—NOVEMBER, 1896.

(Specially compiled for THE LANCET.)

SANITARY AREAS.	Estimated population in the middle of 1896.	Notified Cases of Infectious Disease.										Deaths from Principal Infectious Diseases.										Deaths from all causes.	Death-rate per 1000 living.	Deaths of Infants under one year to 1000 births.
		Small-pox.	Scarlet fever.	Diphtheria.*	Typhus fever.	Enteric fever.	Other continued fevers.	Puerperal fever.	Erysipelas.	Cholera.	Total.	Annual rate per 1000 persons living.	Small-pox.	Measles.	Scarlet fever.	Diphtheria.†	Whooping-cough.	Typhus fever.	Enteric fever.	Other continued fevers.	Diarrhœa.	Total.	Annual rate per 1000 persons living.			
LONDON	4,421,955	—	2216	1191	—	318	9	27	287	—	4288	12·6	—	61	77	217	67	—	66	—	43	531	1·6	6571	19·2	152
West Districts.																										
Paddington	124,838	—	68	15	—	13	—	—	10	—	106	11·1	—	—	2	—	—	—	1	—	2	5	0·5	146	15·2	99
Kensington	170,660	—	92	29	—	15	—	—	17	—	153	11·7	—	—	4	6	4	—	3	—	—	17	1·3	237	18·1	183
Hammersmith	104,561	—	50	26	—	6	—	1	14	—	97	12·1	—	—	1	5	1	—	1	—	2	10	1·2	131	16·3	133
Fulham	115,008	—	81	22	—	9	—	2	13	—	127	14·4	—	—	6	2	2	—	1	—	—	11	1·2	155	17·6	101
Chelsea	96,657	—	63	42	—	4	—	—	11	—	120	16·2	—	—	1	10	1	—	2	—	—	14	1·9	123	16·6	115
St. George Hanover-square	80,041	—	23	8	—	8	—	1	3	—	43	7·0	—	—	1	—	1	—	1	—	—	3	0·5	104	16·9	226
Westminster	53,477	—	19	8	—	2	—	—	7	—	36	8·8	—	1	—	—	1	—	—	—	—	2	0·5	94	22·9	235
St. James Westminster	22,955	—	2	3	—	—	—	—	1	—	6	3·4	—	—	—	—	—	—	1	—	—	1	0·6	34	19·3	194
North Districts.																										
Marylebone	141,114	—	35	17	—	8	—	—	30	—	90	8·3	—	—	2	8	1	—	3	—	2	16	1·5	228	21·1	149
Hampstead	75,812	—	28	11	—	10	—	—	7	—	56	9·6	—	—	2	1	1	—	1	—	—	5	0·9	70	12·0	69
St. Pancras	241,066	—	90	35	—	18	—	7	35	—	183	9·9	—	—	2	9	4	—	3	—	1	19	1·0	340	18·4	118
Islington	337,629	—	178	18	—	19	—	5	24	—	344	12·5	—	—	5	18	5	—	4	—	4	36	1·4	464	17·9	132
Stoke Newington	33,615	—	16	3	—	1	—	—	4	—	24	9·3	—	—	1	—	—	—	—	—	—	1	0·4	39	15·1	136
Hackney	213,774	—	141	81	—	18	1	2	22	—	275	16·8	—	—	3	10	1	—	7	—	3	24	1·5	284	16·1	90
Central Districts.																										
St. Giles	38,168	—	23	1	—	2	—	—	10	—	36	12·3	—	—	1	—	—	—	—	—	1	2	0·7	61	20·8	132
St. Martin-in-the-Fields	13,003	—	11	2	—	2	—	—	1	—	16	16·0	—	—	—	—	—	—	—	—	—	—	—	18	18·1	162
Strand	23,820	—	11	2	—	1	—	—	1	—	15	8·2	—	—	—	—	3	—	—	—	1	4	2·2	57	31·2	235
Holborn	30,932	—	5	2	—	4	—	—	3	—	14	5·9	—	—	—	—	2	—	1	—	—	3	1·3	62	26·1	232
Clerkenwell	66,195	—	43	22	—	6	—	1	15	—	87	17·1	—	—	—	3	1	—	2	—	—	6	1·2	129	25·4	189
St. Luke	41,478	—	33	16	—	3	—	—	14	—	66	20·7	—	—	3	2	—	—	—	—	1	6	1·9	93	29·2	194
City of London	31,409	—	10	5	—	2	—	—	2	—	19	7·9	—	—	—	1	—	—	—	—	—	1	0·4	38	15·8	111
East Districts.																										
Shoreditch	122,265	—	68	47	—	12	—	—	19	—	146	15·6	—	7	—	8	1	—	2	—	2	20	2·1	204	21·8	137
Bethnal Green	139,151	—	92	19	—	10	—	—	25	—	146	14·7	—	4	3	7	1	—	1	—	2	18	1·8	202	20·4	129
Whitechapel	76,886	—	29	27	—	8	—	1	20	—	85	14·0	—	2	1	3	—	—	1	—	—	7	1·2	122	21·8	154
St. George-in-the-East	47,589	—	26	17	—	3	—	—	6	—	52	14·2	—	—	—	4	—	—	—	—	—	4	1·1	85	22·7	101
Limehouse	58,347	—	31	27	—	2	—	—	9	—	69	15·4	—	16	2	6	—	—	1	—	1	25	5·6	145	32·4	218
Mile End Old Town	111,226	—	46	22	—	5	—	1	14	—	88	16·3	—	2	2	6	6	—	1	—	1	18	2·1	188	22·0	171
Poplar	169,379	—	82	58	—	22	1	1	28	—	192	14·8	—	10	1	12	3	—	6	—	5	37	2·8	249	23·0	172
South Districts.																										
St. Saviour Southwark	25,276	—	19	17	—	1	—	—	3	—	40	20·6	—	—	1	3	3	—	—	—	—	7	3·6	42	21·7	169
St. George Southwark	60,301	—	24	8	—	7	—	—	6	—	45	9·7	—	3	—	2	—	—	1	—	—	6	1·3	125	27·0	289
Newington	121,191	—	84	36	—	5	1	1	10	—	117	12·6	—	2	2	7	1	—	—	—	2	14	1·5	197	21·2	172
St. Olave Southwark	11,673	—	3	5	—	—	—	—	6	—	14	15·6	—	—	—	2	—	—	1	—	1	4	4·5	22	24·6	111
Bermondsey	85,508	—	33	29	—	5	—	—	10	—	77	11·7	—	—	1	7	3	—	2	—	—	13	2·0	145	22·1	141
Rotherhithe	40,432	—	12	11	—	—	—	—	9	—	32	10·3	—	5	1	4	1	—	—	—	—	11	3·5	70	22·6	114
Lambeth	286,036	—	130	89	—	22	4	—	30	—	245	10·8	—	—	6	16	5	—	3	—	5	35	1·5	469	20·7	144
Battersea	165,864	—	125	38	—	9	—	1	22	—	195	15·3	—	—	4	8	—	—	3	—	2	17	1·3	220	17·3	159
Wandsworth	182,908	—	123	27	—	11	1	—	21	—	183	12·6	—	—	2	4	1	—	2	—	—	9	0·6	212	14·6	140
Camberwell	253,975	—	92	129	—	19	—	2	31	—	273	14·0	—	2	6	19	—	—	2	—	2	31	1·6	321	16·5	110
Greenwich	176,203	—	131	46	—	10	—	—	23	—	210	15·5	—	6	7	4	5	—	5	—	1	28	2·1	266	19·7	159
Lewisham (excluding Penge)	83,795	—	27	41	—	6	—	—	14	—	88	13·7	—	—	—	11	2	—	3	—	—	16	2·5	107	16·6	144
Woolwich...	41,334	—	9	11	—	2	—	1	4	—	27	8·5	—	—	1	5	1	—	1	—	1	9	2·8	68	21·4	189
Lee	38,714	—	7	12	—	2	—	—	1	—	23	7·7	—	—	1	3	1	—	—	—	—	5	1·7	43	14·5	167
Plumstead	59,610	—	31	7	—	2	1	—	4	—	45	9·8	—	1	2	2	5	—	—	—	1	11	2·4	74	16·2	130
Port of London	—	—	—	—	—	3	—	—	—	—	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

* Including 32 cases of membranous croup.

† Including deaths from membranous croup.

these diseases were recorded in Paddington, St. George Hanover-square, Westminster, Stoke Newington, and City of London; and the highest rates in Limehouse, Poplar, St. Saviour Southwark, St. Olave Southwark, Rotherhithe, Lewisham, and Woolwich. No fatal case of small-pox was registered in London during November, and it is now nearly five months since a death from this disease was recorded within the metropolis. The 61 deaths referred to measles were less than a third of the corrected average number in the corresponding periods of the ten preceding years; this disease was proportionately most fatal in Shoreditch, Limehouse, Poplar, St. George Southwark, and Rotherhithe sanitary areas. The 77 fatal cases of scarlet fever were 33 below the corrected average number; this disease showed the highest proportional fatality in Fulham, St. Luke, and Greenwich sanitary areas. The 217 deaths from diphtheria exceeded by 33 the corrected average number; among the various sanitary areas this disease was proportionally most fatal in Chelsea, St. George-in-the-East, Limehouse, St. Saviour Southwark, Bermondsey, Rotherhithe, Lewisham, Woolwich, and Lee. The 67 fatal cases of whooping-cough were little more than half the corrected average number; this disease showed the highest proportional fatality in Mile End Old Town, St. Saviour Southwark, and Plumstead sanitary areas. The 66 deaths referred to enteric fever were 11 below the corrected average number; among the various sanitary areas this disease was proportionally most fatal in Hackney, Poplar, Greenwich, and Lewisham. The 43 fatal cases of diarrhœa were 28 below the corrected average number. In conclusion, it may be stated that the mortality in London during November from these principal zymotic diseases was nearly 33 per cent. below the average.

Infant mortality in London, measured by the proportion of deaths of children under one year of age to births registered, was equal to 152 per 1000. Among the various sanitary areas the lowest rates of infant mortality were recorded in Paddington, Hampstead, Hackney, City of London, St. George-in-the-East, and St. Olave Southwark; and the highest rates in St. George Hanover-square, Westminster, Strand, Holborn, Limehouse, and St. George Southwark.

THE SERVICES.

ARMY MEDICAL STAFF.

SURGEON-MAJOR HACKETT, Medical Staff, Aldershot, to embark for service in India. Surgeon-Captain J. J. Russell, M.B., embarks for Gibraltar in January next. The orders for the embarkation for service in India of Surgeon-Major P. B. Tuthill, M.B., have been cancelled. Surgeon-Major G. B. Russell has arrived in Dublin. Surgeon-Major R. E. R. Morse has joined at Warley for duty. Surgeon-Colonel Henry S. Muir, M.D., to be Surgeon-Major-General, vice C. H. Giraud, retired. Brigade-Surgeon-Lieutenant-Colonel James P. Rooney to be Surgeon-Colonel, vice C. McD. Cuffe, C.B. Surgeon-Captain G. Bent, A.M.S., will embark at Southampton on the 15th inst. in the Royal Mail s.s. *Atrato* for Barbadoes.

NAVAL MEDICAL SERVICE.

The following appointments are notified:—Staff-Surgeons: Alexander L. Christie, M.B., to the *Talbot;* James M'C. Martin to the *Forte;* and Wm. M. Lory to the *Colossus.* Surgeon: Cyril J. Mansfield to the *President* for three months' course of instruction at a Metropolitan hospital.

VOLUNTEER CORPS.

Rifle: 2nd Volunteer Battalion the Queen's (Royal West Surrey Regiment): Paget Dundas Minchin, gent., to be Surgeon-Lieutenant. 1st Volunteer Battalion the Essex Regiment: Surgeon-Lieutenant A. W. Wallis resigns his commission, 1st Herefordshire: Surgeon-Lieutenant W. B. Giles resigns his commission. 1st (Hallamshire) Volunteer Battalion the York and Lancaster Regiment: Duncan Grey Newton, M.B., to be Surgeon-Lieutenant. 3rd (Morayshire) Volunteer Battalion, Seaforth Highlanders (Ross-shire Buffs, the Duke of Albany's): Surgeon-Lieutenant G. C. Milligan, M.B., to be Surgeon-Captain. 19th Middlesex (St. Giles's and St. George's, Bloomsbury): Surgeon-Lieutenant A. W. Wigmore to be Surgeon-Captain.

MR. BRODRICK AND THE ARMY.

The Under Secretary for War gave an interesting and instructive speech at Farnham on the 7th inst., in which, among other things, he drew a contrast between the conditions of soldiering in the German and British armies, and pointed out that we paid our private soldier three and a quarter times as much as Germany and gave him a ration costing half as much again, while it was estimated that £2,000,000 annually was subscribed by relations of men with the colours in Germany to eke out their pay and rations. Mr. Brodrick spoke also in vindication of the management of the War Office officials, claiming for them that they were men of experience and prudent administrators of funds.

THE FAMINE IN INDIA.

The great topic of conversation and of comment in the Indian journals at the present time is, of course, the famine, and the Government of India has been overwhelmed with suggestions as to the best way of dealing with it. Apart from grain riots and the direct effects of starvation, a famine is always followed by a large increase of sickness of various kinds, which manifests itself in the mortality tables for some time afterwards. The Indian officials have had much experience in organising relief works and in devising means for food supplies, and great activity is being displayed in dealing with the threatened famine.

THE PLAGUE IN BOMBAY.

The latest Anglo-Indian papers state that the plague still continues in Bombay spite of the strenuous efforts of the authorities to stamp it out. The centre of the plague still continues to be in the Mandvi district, where there were thirteen deaths during the week ending Nov. 17th.

The *Broad Arrow* states that the death of Surgeon-Major-General Markey has caused a re-arrangement in administrative medical postings. Surgeon-Major-General Nash, who is now home on privilege leave, will it is anticipated be retained for the Netley vacancy. This officer has been in Egypt only three and a half years, and previous to that had ten years at the Medical Division of the War Office. Surgeon-Major-General Cuffe, C.B., will on arrival home from India, take up the appointment of P.M.O., Southern District, at Portsmouth, and Surgeon-Colonel Muir, now abroad will, on his early promotion, proceed to Egypt, vice Nash.

A competitive examination for thirty-five commissions in the Army Medical Staff will be held on Feb. 5th next and following days.

Correspondence.

"Audi alteram partem."

HOSPITAL ABUSE AT LIVERPOOL.

To the Editors of THE LANCET.

SIRS,—My attention has been called to an article in THE LANCET of Nov. 21st in reference to the Eye and Ear Hospitals of Liverpool, and as your Special Commissioner has made several statements concerning St. Paul's Eye and Ear Hospital which are incorrect I shall be obliged if you will put before your readers the facts of the case. In one particular your Commissioner is correct. St. Paul's Eye and Ear Hospital does owe its initiation to the action of a medical man, but he ought to have added to his statement, "like all other hospitals in the city." Prior to the formation of St. Paul's Eye and Ear Hospital the surgeon alluded to never had any communication or negotiations with the Eye and Ear Infirmary as to joining their staff. It is true he was doing a good work amongst the poor in Liverpool in a private way. St. Paul's Eye and Ear Hospital was formally constituted twenty-four years ago, after a public meeting which was held in the town hall, presided over by the mayor and attended by many of the leading citizens, who resolved upon the desirability of its formation. It only commenced work immediately after the Hospital Sunday Fund was instituted. In 1876, four years after its inauguration, it received a grant from that fund, thus early being recognised as one of the public

charities of the town. Yet from your Commissioner's statement it might be inferred that it had only recently been placed on the Hospital Sunday Fund list. The Eye and Ear Infirmary and St. Paul's Eye and Ear Hospital do not compete fiercely with one another as stated. The committee of our hospital have no desire to draw patients from the other institution. Indeed, we have so much difficulty in dealing with the numbers now attending and have at present so little available space that we should rather be relieved than jealous at the attendance of some of them elsewhere. Those who come to us, I imagine, do so mainly because St. Paul's Eye and Ear Hospital is more convenient to their homes than the other infirmary, since it is situate in the middle of the line of docks, and therefore also in the centre of the labouring population on both sides of the river.

Surely it is rather late in the day to question the desirability of a hospital which, after less than twenty-five years existence, has a yearly average of some 6000 patients, of whom, owing to the high average of bad cases, 1100 or more have to be admitted as in-patients. As to the abuses of hospitals referred to there will always be a class of people who will endeavour to pass as hospital patients when they have absolutely no title to charity, but our matron and other officers have strict instructions to make full inquiries from every patient and refuse admission to any person whose poverty does not warrant his receipt of charity and thus check any abuse to the utmost of our power.

Referring to your Commissioner's statement as to our intention to build new premises, our doing so was suggested from several outside quarters at the time attention was drawn to the hospital in consequence of a disastrous fire in February last. Inasmuch as the present building is wholly unsuitable for the large work carried on there the suggestion was welcomed by us, but we cannot lay claim to the credit of the idea. Many of the remarks and deductions of your Commissioner I fear I cannot agree with, but it is neither my province nor desire to express an opinion upon these. I simply wish to correct his statements where inaccurate.

I am, Sirs, yours faithfully,

E. W. CROSBIE OATES,
Hon. Secretary and Treasurer of St. Paul's
Liverpool, Dec. 2nd, 1896. Eye and Ear Hospital.

*** We prefer our Commissioner's reading of the facts to those of our correspondent, and do not admit that our article contained any inaccuracy.—ED. L.

To the Editors of THE LANCET.

SIRS,—Upon the general principle that the multiplication of special, or, indeed, any, hospitals is an evil most of your readers will, I think, be in accord with your Liverpool correspondent in his remarks on the subject of the new Southport Eye and Ear Hospital in THE LANCET of the 5th inst. Of this institution or of hospital affairs at Southport I neither know nor wish to write anything; but with your permission I should like to point out one of the causes of the multiplication of hospitals in the provinces is, in my opinion, the practice that is springing up in one or two towns of treating the old hospitals as close corporations and *only* electing to the honorary staff ex-house surgeons and ex-house physicians, very often when these gentlemen have only just ceased their paid connexion with the institution and have no established position in the town—even if they are opposed by practitioners of established position and high repute. This state of affairs is especially growing up where the election of medical officers has been taken out of the hands of the general body of subscribers and been vested in the hands of the Board of Management, on which board the honorary staff often hold the balance of votes. That such a practice is not in the best interest of our medical charities, or likely to tend to check the growth of new hospitals, or to retain for the old ones the respect and sympathy of the general body of local practitioners, must, I think, be apparent.

I am, Sirs, yours faithfully,

A NORTHERN HOSPITAL HONORARY
Dec. 7th, 1896. MEDICAL OFFICER.

COLOUR-TESTS AND THE BOARD OF TRADE.

To the Editors of THE LANCET.

SIRS,—May I again draw the attention of the profession to the unsatisfactory character of the colour-tests used by the Board of Trade and the necessity for employing properly qualified examiners? It will be noticed in the report of the Board of Trade that a little over one-fifth of those rejected appealed, and of this number the enormous percentage of $38\frac{9}{11}$ passed. A test that rejects over 38 per cent. wrongly needs no comment from me. One cannot help thinking that if those in authority could feel personally some of the misery inflicted on a most deserving class of men they would adopt proper tests and see that the examiners they employed knew the rudiments of the subject in which they were examining. In this enlightened nineteenth century it is a matter of wonder to any thinking man that such things can exist. Space will not permit me to give the objections to these tests here. Anyone who is interested in the subject will find them in full in my book on "Colour-Blindness" in the International Scientific Series. I will conclude with the following extract from the report of the Board of Trade:—A sailor was examined on June 9th, 1894, by the old tests and failed. He made the following errors as to coloured lights. He designated pink as green, green as neutral or blue, and bottle-green as salmon. He was examined again on July 7th, 1894, and he again failed. He called pink green and green neutral. *He has since been specially re-examined and passed.* Could a normal-sighted person, after four and a half years' experience at sea, mistake pink for green, green for neutral, and bottle-green for salmon?

I am, Sirs, yours faithfully,

Hendon, N.W., Dec. 7th, 1896. F. W. EDRIDGE-GREEN.

"HYPOTHESES AS TO THE LIFE-HISTORY OF THE MALARIAL PARASITE OUTSIDE THE HUMAN BODY."

To the Editors of THE LANCET.

SIRS,—The English-speaking section of the profession is much indebted to Dr. Bignami for his excellent summary of modern theories on the extra-corporeal phase of the malaria parasite[1] I myself am particularly obliged to him for his able criticism of my own views on this subject. Emanating from so eminent an authority this criticism presumably includes everything of importance adducible against these views. Though not altogether favourable the remarks have strengthened rather than weakened my convictions as to the special *rôle* I attribute to the mosquito in the malaria drama. I can imagine, however, that they have had a contrary effect on others. I would like, therefore, to traverse certain statements and arguments adduced by Bignami in his valuable paper, in the hope of inducing him to modify one or two of his statements which, as they stand at present, are at variance with what I believe are the facts, and are calculated to mislead those of your readers who may not have had the opportunity of making themselves practically acquainted with the phenomena discussed.

1. Following the example of many others Bignami compares the malaria flagellum and its movements to the filaments emitted by scorched blood corpuscles. The comparison is highly misleading. Anyone who has seen and compared these two things must at once be struck by their essential difference. The malaria flagellum is long, definite in size, uniform in thickness with the exception of certain bulbous swellings, is capable of independent existence, and moves so rapidly both when free and when attached that the eye can hardly follow it; the filaments emitted from scorched blood corpuscles are much shorter, irregular in size and form, exhibit merely a feeble to-and-fro waving motion, remain attached to the corpuscle, and do not travel through the blood. The malaria flagellum might be likened to a snake rushing rapidly through the grass, the movements of the other to the waving of a piece of weed attached to a stone in a slowly running stream.

2. I do not, as Bignami represents, say that movement is a proof of life; I merely say that movement is one of the evidences of life. But I do give it to be inferred that complex movements of protoplasm, such as the malaria flagellum exhibits, amount to a proof of life. I point to (*a*) the spirillum-like motion of the flagellum which leads to locomotion; (*b*) the rapid, vibrating, tetanic-like movement; (*c*) the coiling-up movement; (*d*) the fact that the flagellum can bend and buckle up the blood corpuscles; (*e*) the fact that it has been seen to attack leucocytes; and (*f*) the fact

[1] THE LANCET, Nov. 14th and 21st, 1896.

that it can move actively and independently on the microscope slide for several hours. This complexity, vigour, and persistency of movement is, I hold, not merely evidence, but proof of life. In his criticism Bignami does not adequately deal with this subject. He gives his readers the impression that the movements of the flagellum are as feeble and indefinite as the waving of the protoplasmic projections on the scorched blood corpuscle to which he compares them. The real fact is that the movements of the malaria flagellum are far more definite and far more active than the amœboid movements of the small intracorpuscular plasmodia which Bignami very rightly regards as having justified Marchiafava in proclaiming, as Laveran did before him, the parasitic and living nature of this phase of the malaria parasite. I cannot understand how anyone who has closely watched the flagellated malaria organism can declare it to be simply a piece of dead or moribund protoplasm. Bignami remarks that such evidence of vitality as the movements convey is not a proof of life, being merely an "impression." True; but are not many observations which are regarded as thoroughly reliable as evidences of life only impressions? When we see a horse running the impression conveyed is that the horse is alive, and the impression conveyed represents the truth; we do not require to dissect the horse and to look for nuclei to know this. Equally convinced are we by impression that the carriage moving behind the horse is dead although moving. Anyone to whom I have shown the flagellated malaria organism has, relying on impression, at once pronounced it to be a living, not to say a very lively, thing.

3. Bignami says that similar movements are also exhibited by certain dead or dying protozoa. Other writers also make this statement, one apparently copying it from the other and taking its truth for granted. I have never seen such a phenomenon in dying protozoa, and I have never come across a detailed description of such a phenomenon. Bignami would confer a favour on at least some of your readers if he would give additional particulars on this point.

4. Bignami, repeating another statement which has gone the round of the writers, says that the flagellum has no nucleus. Would Bignami enumerate the observers who have themselves actually endeavoured seriously to work at this point and say how many attempts they have made and how they set about making these attempts? It is a difficult and very rare thing to get the flagellated body in a condition suitable for staining in such a way as to render any nucleus it may contain visible. Moreover, the organism is so fine, so delicate, that even if the nucleus were stained it might be very hard to see. In passing I may allude to a method which may be of service in settling this point. Acting on the hint supplied by Dr. Marshall[2] I have found that the ex-flagellation of the malaria crescent can be rapidly brought about by simply breathing on the microscope slip before applying the blood-charged cover-glass; the small amount of moisture so supplied suffices. By keeping such a slip under a bell-glass filled with the steam from a sponge wrung out of hot water for a few minutes, so as to prevent drying at the edges of the cover-glass, it will be found possible to remove the cover-glass with a needle as soon as we learn from an examination with the microscope of a similar and simultaneously prepared slide that ex-flagellation has begun. If the slip and cover-glass are now separated and their respective blood films dried and fixed the flagellated bodies they carry are left in a stainable condition.

5. Bignami, alluding to my hypothesis about the action of the mosquito, says: "If this were true the patient (malarial), on being transported into non-malarial districts, where there are suctorial insects (and non-malarial districts infested by mosquitoes are known to all), ought to disseminate malaria, whereas no instance of such an occurrence has ever been adduced." But are not Mauritius and Réunion cases in point? Prior to 1859 malarial fever was unknown in Mauritius as an endemic disease; after that date during seven years malarial disease became gradually more common, culminating in the great epidemic of 1866, since when malaria is a principal feature in the pathology of this island. Like Mauritius, Réunion was formerly non-malarious; now malaria is endemic there likewise and is a cause of one-third of the total mortality. These facts are well attested. For a thorough examination of the very complete evidence, at all events as regards Mauritius, I would refer the reader to Davidson's "Geographical Pathology," vol. ii., pp. 732–784.

6. It is now very generally recognised that the diffusion of the malaria germ, both in a vertical and in a horizontal sense, is extremely circumscribed. The old Lancisian idea, that the germ is carried by the wind, or trundled along the ground like thistle-down for miles, is now regarded as untenable. To explain this limited diffusion Bignami invokes the services of the mosquito as a germ inoculator, remarking that this insect is active only during the night, the late evening, and the early morning, the times when, as experience has shown, the malaria germ is most abroad. He points out that the operations of the mosquito are carried on near the ground, and that it refuses to be blown about by winds, clinging to the soil just as the malaria germ is known to do. This speculation is very plausible. But, I would ask, is it necessary? Why should we suppose that the diffusion of the malaria germ is conducted on principles different from those regulating the diffusion of other germs? Malaria thrives only in particular and perhaps very limited spots; a few yards above or beyond those spots and there is no malaria. This is quite true. But is a similar thing not equally true in regard to scarlet fever or almost any infectious disease? A few yards away from the patient and there is no risk of infection. A limited area of soil is the source of the germs in the one case and a human body is the source of the germs in the other case, and the range of diffusion of the germs is pretty much the same in both. It is certain that under ordinary conditions disease germs perish very rapidly on quitting the nidus in which they were generated for the atmosphere; either this, or they require great concentration in order to establish themselves in the human body. Malaria is the same in this respect as any other germ, so that such a special hypothesis as that of Bignami's is quite unnecessary to explain the limitations of its diffusion.

7. In conclusion, again alluding to Bignami's own hypothesis of the inoculation of the malaria germ by the bite of the mosquito, I would ask him how he accounts for the very special and well-recognised danger as regards malaria attending disturbance of the soil in malarious countries. Are mosquitoes more numerous and more vicious under such circumstances?—I am, Sirs, yours truly,

Queen Anne-street, W., Nov. 24th, 1896. PATRICK MANSON.

[2] THE LANCET, Oct. 24th, 1896.

"CHRISTIAN BURIAL *v.* CREMATION: A NOTE AND A QUERY."

To the Editors of THE LANCET.

SIRS,—I have read with much interest the communications contained in THE LANCET of Oct. 24th and Oct. 31st on this subject. I have lately had the sorrow of losing an invalid son aged twelve years. I took the poor outward form that was left to us over to Manchester to have it cremated. On arrival at the crematorium the coffin was reverently carried into the large hall, at the upper end of which, on a raised platform, was the bier on which it was to rest facing the passage leading into that portion of the building in which the cremation was to be carried out. This passage is closed by doors which open back and are concealed by curtains. The coffin was covered by a pall concealing it from view. On the signal being given the doors opened noiselessly and the curtains were drawn back, and, by noiselessly working mechanism, the coffin passed slowly from under the pall into the passage and the doors were closed as quietly as they were opened; the curtains were again drawn, and as far as myself and those who were with me were concerned all was over. No parting with one's dead could be more peaceful or reverent. The remark of one of my brothers who was with me, and who was not in favour of cremation before, showed the impression it made upon him. "I had no idea that it could be so nice." Much as I myself had expected from it I am glad to say that the reality greatly surpassed my expectations. Now my wife and I feel the unspeakable comfort of knowing that the poor earthly shell in which his suffering spirit was so long imprisoned has returned to its primary elements, and our thoughts are not tied down to a new-made grave in one or other of our crowded cemeteries in this city. We know that the form is not lying out in the cold ground undergoing the slow and horrible process of putrefaction through which

the poor form has to pass to return to its elements in the process of earth burial. We know that it is safe from any chance of those horrible disturbances which take place in cemeteries from time to time, which are too dreadful to dwell upon, but which are no less horrible realities. To speak of churchyards and cemeteries as being "God's acres" is merely covering over a horrible reality with a beautiful sentiment. To speak of earth burial as "essentially a Christian method of dealing with the dead" is misleading, as our Lord's body was not committed to the earth, but laid in a tomb hewn in the rock, and such a form of burial was freely practised at that time. The bodies were wrapped in linen cloths and spices, much as the Egyptians were accustomed to deal with their dead. In our son's case, his form having returned to its elements, the thoughts of his mother and myself no longer dwell upon it, but dwell with his memory as with a spiritual presence. To us the thought is full of peace. I have no wish, however, to force others to be of the same way of thinking, but write to let others know the procedure, and how it is regarded by those who have had experience of this method of parting with the bodily form of one beloved whose spirit has passed into its future state. Everything about the procedure is peaceful and soothing, very different to what passes at the graveside in churchyards and cemeteries, than which there are few things more trying to one's feelings, even when the body being committed to the earth is not that of a relative or even a near friend. There is one other aspect not lightly to be passed over in contrasting the two methods of dealing with our dead. How many a useful life has been cut short through standing at the graveside in all sorts of inclement weather. There is a real and substantial foundation for the old saying, "One funeral makes many." This cannot be the case in cremation; the parting takes place under cover, free from the risk of damp and chills.

I remain, Sirs, faithfully yours,

JOHN W. MARTIN, M.D. R.U.I.

Claremont-place, Sheffield, Nov. 16th, 1896.

"MALIGNANT DISEASE OF THE BREAST OF TWENTY YEARS' DURATION."

To the Editors of THE LANCET.

SIRS,—It is right to mention that the portion of tissue Dr. Campbell Black was kind enough to send me and which was examined by Dr. Rolleston was scanty and much disintegrated by maceration in spirit. We were unable to clearly make out its structure, and our negative tendency in the face of the clinical evidence adduced by Dr. Black amounts to nothing. Personally, I am not able to recognise a pathognomonic "cancer cell," and only the general structure and arrangement of cells are in such cases to be relied upon. May I take this opportunity of mentioning that I have long been collecting evidence upon cases where long life has been observed after removal of the breast for scirrhus and should be grateful to your readers for the brief particulars of any of their most important and interesting cases? Any such information shall receive full acknowledgement.

I am, Sirs, yours truly,

A. MARMADUKE SHEILD.

Cavendish-place, W., Nov. 29th, 1896.

"ON THE SERO-DIAGNOSIS OF TYPHOID FEVER."

To the Editors of THE LANCET.

SIRS,—I desire to draw attention to the conclusive and striking results to be obtained from using obliquely solidified blood serum as a culture medium for the typhoid bacilli in Widal's diagnostic method. A loopful of the turbid condensation fluid from an oblique ox-serum tube twenty-four hours after inoculation with typhoid contains myriads of extremely short and most actively worked bacilli which show the phenomena of immobilisation and agglutination in a much more striking way than when grown on broth. Both occur almost instantaneously on the addition of the typhoid serum, whereas I notice that with broth cultures complete immobilisation is rare inside two minutes, and agglutination is rendered less striking by the fact that the bacilli are in many fields few and far between. By the use of serum tubes one not only obtains instant immobilisation, but agglutination so marked that the masses of agglomerated bacilli are often large enough to occupy nearly an entire oil-immersion field.

I am, Sirs, yours faithfully,

EDMOND J. MCWEENEY, M.D. R.U.I.,

Pathologist to the Mater Misericordiæ Hospital, Dublin.

Nov. 30th, 1896.

GUAIACOL AND CREOSOTE IN PULMONARY PHTHISIS.

To the Editors of THE LANCET.

SIRS,—It was with great pleasure that I read Dr. Seifert's admirably clear article on this subject in THE LANCET of Nov. 14th, 1896, as it will help to draw attention to the value of this group of remedies in the treatment of phthisis, which many in England are disposed to doubt. I am well acquainted with the advantageous properties of the carbonates of creosote and guaiacol and have myself prescribed the former with apparent benefit. But at present the price of these drugs is prohibitive excepting for wealthy patients. A lady under my care who had been taking creosotal for a few weeks plaintively asked me one day whether it was absolutely necessary to continue paying a guinea a bottle for her medicine; and on inquiry I found that none of my patients could get it for much less, while one gentleman had obtained it from a well-known firm, through a cousin who was a trained nurse, at the "reduced price" of 22*s.* for an 8-oz. bottle. In some recent wholesale price-lists creosote and guaiacol are priced respectively at 6*d.* and 1*s.* 6*d.* per ounce, whereas the carbonates are 2*s.* 4*d.* and 4*s.* 6*d.* per ounce. These higher prices are prohibitory for hospital patients, and are strongly objected to by ordinary middle-class patients when the course of treatment is (as it must be in phthisis) a long one. Under these circumstances one is driven to use the cheaper remedies in most cases and to overcome their drawbacks in other ways. The causticity of creosote and guaiacol has in my opinion been somewhat overrated, as I find them clinically well borne if suitably prescribed—in most cases in doses up to forty-five minims per diem by the mouth, and occasionally in much larger doses.

Every medical man is in the habit of prescribing without any ill effects such caustic drugs as phenol, liquor potassæ, and nitric and sulphuric acids, merely by suitably diluting them, and the same can be done with creosote and guaiacol. The latter should always be given on a full stomach, and their solution in alcohol or glycerine further diluted by mixing with some bland fluid such as milk. Possibly in this way an albuminate is formed; but, at all events, this is effective and in most patients causes no disturbance. Pills and capsules I regard with suspicion, as they might liberate their un iluted contents on the surface of the stomach and are much less readily tolerated by most patients.

Dr. Seifert does not state how the guaiacol was administered to the young dog he referred to, but in any case a dose of a drachm and a half (corresponding to one of about seventeen fluid drachms in a man) would be likely to act as an irritant poison. Such an experiment is of little value except as showing the superior blandness of the carbonate, which is not now in dispute. Concentrated creosote and guaiacol are undoubtedly caustic to epithelial structures, but are much less so to deeper structures. In some experiments of mine with Dr. Hewlett on rabbits it was found that ½ c.c. of pure guaiacol could be repeatedly injected under the skin without any obvious mischief, and oily solutions of from 20 to 50 per cent. volume may be injected in very large quantities in the human subject without mischief if the skin is not rendered too tense and the injection is slowly performed.

As regards the relative toxicity of creosote and guaiacol and their carbonates one would not expect to find much difference after absorption, since the carbonic acid is liberated in the bowel. Poggi's experiments refer, as Dr. Seifert surmises, to guaiacol and not its carbonate. I hope very shortly to test their correctness. In conclusion, I may say that Dr. Seifert will be a benefactor to the British public if he can induce the manufacturers of creosotal to send it over at considerably reduced prices, whereby they will probably obtain for it a much larger market.

I am, Sirs, yours truly,

F. R. WALTERS, M.D., M.R.C.P. Lond.

Welbeck-street, W.

"ELECTION OF DIRECT REPRESENTATIVES TO THE GENERAL MEDICAL COUNCIL."

To the Editors of THE LANCET.

SIRS,—Dr. Woodcock's reply to Dr. A. McCook Weir, published in THE LANCET of Nov. 28th, is misleading. He states that an inferior order of midwifery practitioners already exists. That a large number of women throughout the country practise midwifery in an irregular manner is true, in spite of the Medical Acts which were passed "for the protection of the public" and to enable it to discern between qualified and unqualified practice, &c. If the Acts were put into force by the General Medical Council or some other body these women would soon cease to practise. How is it that, instead of being prevented from practising or curtailed, they have actually been pampered and developed, from the ranks of diploma merchants right up to the General Medical Council itself? The toleration of these women practising in an irregular manner is very different to what Dr. Woodcock proposes—namely, to *make* them a legally recognised and legally registered inferior order of midwifery practitioners, which, among other things, will enable them to obtain fees in a court of law and to pose before the public as legally qualified specialists in the science and art of midwifery.

With regard to the "safeguards" he speaks of they will be in the great majority of cases so much waste paper, for who is to be the informant and who are to be the police? Will it not place the onus of proof generally on the medical men? Is it not unfair that we should be taxed with this disagreeable burden? Besides, is it not well known that we as a profession are the slowest in defending our own interests? Take a case of libel or slander. Everyone knows the difficulty of inducing anyone to enter court to give even the most glaring and palpable evidence. They will do anything to avoid publicity. So it will be with regard to these much-vaunted "safeguards" when they come to be put to the test, when the law has to be moved to carry them out, and I venture to predict that the last state of the legally registered midwifery nurse or obstetric nurse will be worse than the first state of the old-fashioned midwife!

I am, Sirs, yours faithfully,

Manchester, Dec. 1st, 1896. G. H. BROADBENT.

"RANSOM *v.* THE OD CHEM. CO."

To the Editors of THE LANCET.

SIRS,—Can you spare me space to express my great indebtedness to the Medical Defence Union for the energy and skill with which they have brought my case against the Od Chem. Co. to a successful issue? Without their experience and help my position would have been most difficult. If only joined the Union within the last year, little thinking that its value would so soon be proved. The lesson is obvious—viz., that every medical man should become a member. No one can tell how soon he may be attacked.

I am, Sirs, yours faithfully,

Nottingham, Dec. 5th, 1896. W. B. RANSOM.

"DEATH CERTIFICATES AND UNQUALIFIED ASSISTANTS."

To the Editors of THE LANCET.

SIRS,—I was quite pleased to see the letter of "Registered" under the above heading in THE LANCET of Dec. 5th, the more so as I notice that the subject is one which had been under the notice of the General Medical Council at its recent sitting. Too true, I fear, it is that gross irregularities in connexion with the registration of deaths are in some places frequently practised, and the system which admits of cases of death being able to be registered without qualified certification cannot be too soon put a stop to if registration is to be of any value as a record for statistics and other purposes. No uncertified death in my opinion ought to be registered, and where an unqualified person gives an irregular note to a registrar or makes a private statement as to his or her opinion about a death I consider registrars should be instructed by the Registrar-General to treat such communications as waste paper, and either to refer the assigning of the cause of death to a coroner's jury or to a medical man's dictum. I know one registrar at least who absolutely refuses to accept other than the finding of one of these and with the result as he told me that little or no unqualified practice is attempted in his district. Not even, I believe, does the Sarah Gamp flourish there owing to such a sword hanging over her head. Another point I would insist on is that all known abortions and miscarriages should be registered and liable to the same process as mentioned above, where a qualified opinion is wanting. To deal with unqualified assistants in connexion with death certificates is a hard nut to crack. To me the question of their employment by practitioners without covering is impossible, and in view of this I would propose that the General Medical Council should erase from their books all recognition of unqualified practice in any shape or form. To its want of a definite law in this respect do I attribute many of the present evils which are connected with our profession, and not the least of these is the facility which is given to unscrupulous practitioners to evade the letter and spirit of the "Births and Deaths Registration Act, 1874," with regard to death certificates. I do not think it would be too hard to prove many instances of registrars accepting notes or statements from unqualified assistants, or midwives, on the strength of which deaths are registered and classed as uncertified. Also of death certificates having been given by principals who perhaps saw the deceased only once some days previous to, or who dropped in just before, death, so as to be able to fulfil the qualification of "having attended ..... during the last illness," and to cover his unqualified assistant who had the charge and responsibility of the patient throughout. These and others which I could mention are some reasons why I think unqualified assistants should not be allowed by the General Medical Council, and this restriction if adopted would very soon, if not wholly at least very materially, put a stop to all kinds of collusion between qualified and unqualified persons with regard to death certificates. In conclusion, I would draw attention to the anomaly which permits of a medical man being able to give a certificate where he is called in to and sees a dying person only once or perhaps twice at most, who has been ill for some days or weeks and who has had no medical advice through the negligence or indifference of those around. Cases like these, I think, should be investigated irrespective of all considerations, and then doubtless another way of encouraging death would be got rid of. Hoping soon to see the late move of the General Medical Council in the matter of death certificates bearing fruit,

I am, Sirs, yours faithfully,

R. HILL SHAW, B.A., M.B., B.Ch. Dub.

Brighton, Dec. 5th, 1896.

"'INSUSCEPTIBILITY' TO VACCINATION."

To the Editors of THE LANCET.

SIRS,—I recollect some twenty years ago vaccinating on three separate and well divided occasions an infant; each time the result was "unsuccessful," and on each occasion different lymph—humanised—was used. Some few months later the infant contracted small-pox and died. I ordinarily have adopted scraping or puncturing and have used "tube lymph"; sometimes I found my first operation unsuccessful, and then I tried the other method, always using different lymph. I was rarely a second time unsuccessful. For the last few years I have used only "calf lymph" obtained from the National Vaccine Institution. My cases have been few and successful until quite recently, when having obtained my lymph in the usual way I operated by puncture in three places, using one point—result, unsuccessful. A fortnight after this operation I operated again by scraping, using the second point—result, unsuccessful. I need not say I followed the institution's instructions as to warm water, &c.

I am, Sirs, yours faithfully,

Bow, Dec. 8th, 1896. RUSSELL MAIN TALBOT.

BEATTY *v.* CULLINGWORTH.

To the Editors of THE LANCET.

SIRS,—We beg to enclose a second list of subscriptions towards the fund raised to pay the costs in the action

recently brought against Dr. Cullingworth. Owing to the ready and generous response which has been made to the appeal sufficient has now been promised to relieve Dr. Cullingworth of all pecuniary loss, so that unless some unforeseen circumstance should arise further subscriptions are not needed. A detailed balance-sheet will, with your permission, be published in a subsequent issue of your journal.

We are, Sirs, yours truly,

T. D. ACLAND, B. PITTS, } Hon. Secs.

Dec. 8th, 1896.

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Dr. Reynolds, Manchester	1	1	0
Dr. Ashby, Manchester...	2	2	0
Mr. Collier, Manchester	2	2	0
Mr. Bently Mann, Manchester	1	1	0
Mr. Hepworth, Eccles ...	1	1	0
Dr. Serra, Eccles	1	1	0
Dr. Buxton, Blackpool...	1	1	0
Dr. Annsacker, Manchester	1	1	0
Dr. Rayner, Stockport...	2	2	0
Dr. Hutton, Manchester	2	2	0
Mr. B. Roberts, Manchester	2	2	0
Dr. Milligan, Manchester	2	2	0
Dr. Hill Griffith, Manchester	1	1	0
Mr. A. Reynolds, Leeds	2	2	0
Mr. Blease, Altrincham	1	1	0
Mr. Coathupe, Bristol ...	2	2	0
Dr. Pierce, Manchester	1	1	0

*** In our issue of Dec. 5th the name of Dr. R. Douglas Powell was wrongly inserted as Mr. R. Douglas Powell.

"BATTLE OF THE CLUBS."

To the Editors of THE LANCET.

SIRS,—The letter in THE LANCET of Nov. 28th signed "M.D. Edin." has so much in common with one which has appeared in the Yarmouth weeklies, signed "M.D.Edin., M.R.C.S.Eng., Stockport" (N.B., according to the 1896 Directory no one with these qualifications resides in that town), as to convince the reader that they come from the same hand, and that a very friendly-society one; unfair, too, in spite of the fair protestations of true sorrow for us.

Taking his clauses *seriatim*, the withdrawal of propositions by us would have had no effect because a clique of "friendlies," mostly tradesmen, had been on the watch for an excuse to start an institute for years. They roused the working men's feeling against us by denying and suppressing our request for discussion of the proposed changes. If general practice is to be worth anything either the clubs must exclude members above the position of working men from obtaining medical attendance for themselves and families for a few shillings a year, or medical men who value the welfare of their profession must taboo clubs and their allies. Four applications came in for the prospective post in about a week from the publication of the club-dispute here in the *Daily Telegraph*. The statement that "the promoters are taxed to answer the letters from scores of applicants" is not believed by any of us here. We should have heard of such an influx; besides, one of the promoters is a printer, very willing to strike off scores of reply-forms. In his first letter he predicts that hundreds would apply. The seventy-four candidates for the institute assistantship may be realities, but you will see that in the letter to the local press "five were Fellows of the Royal Colleges" (fancy a F.R.C.P. Lond. going in for such a post), and that the salary offered was £500, not £300, as stated in the letter to you. Even the lower figure sounds extraordinary for an assistant. At the Norwich Institute, where two surgeons look after 11,000 men, women, and children, the senior medical officer is not paid more, if as much, and their tradesmen can tell that one or two of them have failed to meet their liabilities in the past. I know nothing of the present medical officers; anyone who knows country towns will see the absurdity of supposing that "Sir F. Bateman or Sir P. Eade would" or could "mediate" between us and the clubs. The consulting physician to the Norwich Institute has resigned. The Foresters women and children's branches here have done more harm to the profession than the medical and insurance societies. To say that we were coerced is contrary to fact. We are of opinion that we shall do better without clubs unrestricted by class limits which have been fostered to the detriment of all.

Appointments to club institutes have been generally taken for the sake of introduction to private practice; but since two Norwich M.D.'s carried off a large club from the institute the committee appears to have guarded against a repetition of the trick. If in the exuberance of his sympathy for us, "M.D. Edin., M.R.C.S. Eng., Stockport," had wished to give us the benefit of his opinions he could easily have written to our chairman. As it is, his letter to the local papers encouraged the clubs to believe that the best of our profession were anxious to "be servants" (a phrase insisted on by their leader) to their institute, and his letter to you has given the clubs a splendid medical advertisement in your valued columns.

I should be obliged if you would insert the above in your next issue, as it is not improbable that "M.D. Edin.'s" letter may induce many young practitioners to apply to the clubs in real ignorance of the facts.

I am, Sirs, yours faithfully,

HENRY BLAKE, M.B.Lond.

Great Yarmouth, Nov. 28th, 1896.

*** We regret that the great pressure on our space prevented insertion of this letter last week.—ED. L.

To the Editors of THE LANCET.

SIRS,—Last evening the wife of a respectable working man called upon me in order to engage me to attend her in her approaching confinement. She seemed very anxious to know what the fee would be; and on telling her that I did not attend such cases under a guinea she exclaimed, "I have lately come from ———, where I was in a club, and all I paid was 6*s.* and had a choice of four doctors." I felt it would be almost useless to say much about "professional depravity" to her, but I did ask her if she paid her baker, grocer, draper, or bootmaker in the same manner, and she admitted that she did not, and that she would not expect to be well treated by them if she did. I told her I did not think any medical man could have interest, heart, or soul in his work for such a miserable pittance, putting aside the

responsibility attaching to such times. In fairness I will say she admitted having been well attended to at ——, but Sirs, where is our noble profession being dragged when a man is content (!) to be up for hours at night and pay five or six visits afterwards (the woman admitted that number) for a fee such as you would give to a cab-driver for taking you a few miles to an evening party? Would it not be better for the profession at —— and other places to lend an assisting hand to poor people *gratis* in cases of emergency or cases requiring special and skilled interference? I have myself done so, and there is certainly nothing derogatory in such work; but to be called out of your bed at night, perhaps detained for two or three hours or longer, pay five or six visits subsequently, and ultimately receive 6*s*., is degrading in the extreme and simply pauperising the people as well as the profession. Any old Gamp, untrained, unskilled, ignorant, and dirty, could, and does, command as much and more for her services, and it is indeed pitiable to contemplate the position to which members of our profession have brought themselves when they are content to act as drudge to such institutions as these clubs, which include among their other offensive conditions attendance on midwifery cases at starvation wages.

I am, Sirs, yours faithfully,

Dec. 1st, 1896. FAIR WORK, FAIR WAGE.

"THE USE OF CALF LYMPH BY PUBLIC VACCINATORS."

To the Editors of THE LANCET.

SIRS,—There are two letters in THE LANCET of Nov. 28th which certainly merit the consideration of the profession. I refer to those signed by Dr. W. H. Coates and "M.D. Edin." They show only two clearly the lamentable state of affairs in the profession at the present time and the value that the public places on our time and knowledge. To take Dr. Coates's letter first. He finds, after spending, presumably, about five years of his life and about £1000 of his money on the acquisition of professional knowledge, that he is valued by the public, through their representatives the guardians, at something considerably less than a cab-driver. By travelling 100 miles and vaccinating certain children he is able to earn from £2 to £3. Let us put it at the half-way sum of 50*s*. It works out just 6*d*. a mile. The guardians of his union could not find a cab-driver to travel the distance for double the money. And "cabby" would have no value as a vaccinator on his arrival. I do not know, but I think in these hard times of agricultural depression and short work they might get a cattle drover to travel the distance for the money. And that is the value of Dr. Coates and the rest of us public vaccinators. Dr. Coates's experience I believe to be pretty usual. My salary as public vaccinator works out at about 6*d*. a mile. I had another district in which it worked out less. I asked the guardians to increase the rate of pay from 3*s*. per case to 5*s*. Naturally they refused. Whereupon I resigned the appointment. Did I get the support of the profession locally? Just to this extent, that when the appointment was advertised by them, I tendered at 5*s*. and another local practitioner, fully aware of the circumstances, at 3*s*. 6*d*. And this exemplifies the wisdom of "M.D. Edin." There is not the slightest chance of winning the "Battle of the Clubs" or any other battle because we have not only to fight the enemy but traitors in our own camp, "not single spies but in battalions." There is probably no salary so small, no position so humiliating, that a medical man cannot be found to accept it. Every report of struggle in your columns, from Adelaide and the specialists downwards, goes to show it. The public places a contemptuous value on our services and we accept the verdict of the public.

I am, Sirs, yours truly,

Dec. 7th, 1896. PROVINCIAL SURGEON.

ADVERTISING ABORTIONISTS.

To the Editors of THE LANCET.

SIRS,—In a recent breach of promise case at Preston it was stated in evidence that the defendant plied the plaintiff—she being pregnant—with certain medicines, and a Blackpool medical man was reported to have said, "The child was poisoned, and it is a miracle that you are living." It seems a fair assumption that these "medicines" were some of the largely advertised nostrums which are guaranteed to cure all irregularities "however caused," and it is upon this subject that a few words may not be inappropriate. Let any fair-minded person consider the effect that statements such as these would have upon a woman who knew that she had exposed herself to the risk of becoming pregnant. Can he doubt that it would be to make her take these preparations, and further, that her object in so doing would be to cause an abortion to take place? Owing to the greater publicity that can be given by means of the press the proprietors of these concoctions are able to appeal to a much larger public and so do more harm than formerly and the evil is one that seems to be growing. There is no question that the large majority of these people make their living by preying upon the fears of erring women. The artful wording of the advertisements is certainly calculated to foster their fears and at the same time offer a means of escape. It is most astonishing that newspapers of repute still continue to insert these notices. The explanation can only be that the managers are unaware of their true nature. Now the law defines the crime of abortion as consisting in unlawfully administering or causing to be administered to any woman, with intent to procure her miscarriage, any poison or other noxious thing or using for the same purpose any instrument or other means whatsoever; also in the use of the same means for the same purpose by any woman. It is also an indictable offence, and punishable by five years' penal servitude, to supply any poison or other noxious thing, or any instrument, or anything whatsoever for the purpose of procuring abortion. This being so, it seems strange that prosecutions do not follow in all such cases, not only of the woman, but also of those who administered and supplied the drugs. It is doubtless true that most, if not all, of these so-called remedies are innocuous and have no such properties as are claimed for them; this, however, does not affect the argument. Of course, all these persons may be of the most spotless character and quite unaware of the wicked uses to which their innocent medicines are put. In that case these remarks should cause them pain and they will at once withdraw their misleading statements from the advertisement columns. Seriously, it is a most lamentable fact that no steps are taken to test the legality of such transactions. If it is held that the law as it stands is not sufficiently stringent to touch this class of offenders then let us take steps to have it strengthened so that we may no longer be open to the taunt that we as a nation are privy to these doings.

I am, Sirs, yours faithfully,

Dec. 7th, 1896. DISGUSTED.

HOSPITAL ABUSE.

(BY OUR SPECIAL COMMISSIONER.)

IV.—LIVERPOOL (*continued*.)

The Children's Infirmary.—The Northern and Southern Hospitals.—The Private Practitioner and the Hospitals.—Attempted Reforms.—Conclusion.

THE Infirmary for Children is another of the special hospitals at Liverpool about which many complaints have been made. So numerous were the cases of abuse due to the action of comparatively rich people who sent their children to this hospital that a committee was appointed to try to mitigate this evil. The committee consisted of three managers, the secretary and treasurer of the hospital, and two members of the medical board. This committee also discussed the question of midwifery and the amendment of the hospital by-laws, but the main subject was the necessity of reducing the number of out-patients by preventing abuses. Some eight years have now elapsed since that committee sat and yet nothing really effective has been done. The fact that this is ancient history in a way adds to its importance; for the difficulty of the problem becomes more evident when we see that it has

[1] The previous articles on this subject were published in THE LANCET on the following dates: (1) Sept. 26th, 1896, Plymouth and Devonport; (2) Oct. 10th, 1896, Exeter; (2 *continued*) Oct. 17th, 1896, Exeter; (3) Oct. 31st, 1896, St. Thomas's Hospital, London; (4) Nov. 14th, 1896, Liverpool; and (4 *continued*) Nov. 21st, 1896, Liverpool.

been considered for so many years without arrival at any satisfactory solution. One of the first proposals made when this committee met was that all out-patients should pay an entrance fee of 6*d*. The medical members of the committee objected. They pointed out that a strong movement already existed in favour of creating provident dispensaries, that a new dispensary had just been opened in Smith Town-road, and it was hoped that this institution would relieve the congestion of patients at the Children's Infirmary. It was also argued that the charge of 6*d*. would not prevent abuse, but would interfere with outside practitioners. It would spoil the charitable character of the work done and prevent some poor people who were really entitled to relief from coming. On the other hand, it would encourage those who had a medical man to come to the hospital instead. They would imagine that they had a right to do so since they paid their 6*d*.

The most practical suggestion consisted in inviting the Charity Organisation Society to send daily an inspector. This inspector was to take down the names and addresses of all new applicants, make inquiries, and report. Only those patients about whom a favourable report had been received would be allowed to return to the hospital. This would mean some forty to fifty inquiries per day. For many of the cases it might suffice for the inspector to satisfy himself that the right address had been given. In other cases the inquiry would be very difficult and delicate, would absorb a great deal of time, and necessitate perhaps two or three visits on different persons. Certainly if only one inspector was employed he would have to give up his whole time to this business. Nor could such a task be confided to a man who was not possessed of skill, tact, and good address. Then, as it would necessitate going about in all seasons and in all weather, the inspector should also possess robust health. A person doing successfully such work might fairly claim a high remuneration, and a hospital administration would be liable to defeat its own purpose by paying a low salary. The inspector would certainly be offered various bribes, and his salary should be sufficiently good to place him above such temptations. Under all these circumstances the demand made by the Charity Organisation Society may be considered very moderate. They expressed their willingness to supply an inspector if he was paid £140 a year. This sum, however, seemed too high for the committee. The latter were of opinion that the hospital could not afford such an outlay, so it was ultimately decided that the medical staff should itself do the work of inspection. There were three honorary assistant medical officers, who attended two days a week. They each agreed to come at 2 P.M. instead of 2.30 P.M. and thus have half an hour to question the new applicants before the time appointed for consultations. By this means it was thought that the cases which were unsuitable either from the medical or economical point of view could be eliminated. This system was carried out for about six months and it was then felt that the plan was not satisfactory. The medical officers found that they often had nothing to do and were wasting their time. This clearly shows that the medical officers could not really do the work. If inspection consists merely of asking a few questions from patients as they are waiting it is not likely to prevent abuse. The real work consists of verifying the answers which the patients give; for this it is indispensable to go to their homes and to make inquiries in the neighbourhood where they live. Of course, this is a work that medical men cannot undertake nor could it have been accomplished in the brief half-hour from 2 to 2.30. To-day practically no measures are taken to prevent abuse. It is true that a resident medical officer is required to be in the out-patients' room and to see all applicants; but whether this results in the prevention of any abuses must depend on the individual medical man. Then there are often so many patients that, even if the resident has the ability and is disposed to play the part of a detective he has not sufficient time given him to make use of these rare talents. The honorary medical officers have also the right to exercise what they are pleased to call an extra supervision, a term which is scarcely appropriate considering the very lax nature of the previous supervision. But by the time the patient reaches the honorary medical officer he has been waiting at least half an hour and perhaps as much as two hours. It is not agreeable for a medical officer to send people away without giving them advice after they have been waiting so long. A few weeks ago a child was brought who had an abscess due to a cut in the head. This was so evidently a case of abuse that the medical officer advised the boy's mother to take him to her usual family attendant, whose name she had mentioned and who, it so happened, had a vast experience of wounds of the head. Though this person was spoken to quite gently and in private her husband nevertheless wrote an indignant letter to the press inquiring what hospitals were for if they could not attend to a boy with a wounded head. Much of the applicant's anger was due to having waited for a long time and also to a total misconception of the aim and object of hospitals. This family could well afford to pay, and for this particular case they could not have made a better selection than that of their usual family attendant, for he has probably seen as many injured heads as any surgeon in Liverpool. Nevertheless, either for the sake of economising a few shillings, which they could well afford to pay, or because they thought they would get better advice at the hospital, they applied to a charity intended exclusively for the poor. Then when quite exceptionally this case of abuse is discovered and checked the hospital is attacked in the press, and the hospital authorities have to write letters of explanation and justification. This could not have happened were it not that a large section of the public entertains a totally false conception of the object and purpose of hospitals.

Many applicants who bring their children to this hospital will, when questioned, answer sometimes quite indignantly that of course they can pay and that they only come to the hospital so as to get the best advice. These very often are quite simple cases that do not require superior advice. Others come from so great a distance that the mere cost of the journey proves that they can afford to pay. One of the medical staff of this hospital was very indignant at the idea of medical men making inquiries as to the financial means of the patient. He would resign rather than engage in any such work. He had often attended boys at the hospital who were far better dressed than his own children, and in doing this he was obliged to own that he "felt rather sore." But though he did not wish to do the work of an inspector there was one rather serious objection to the employment of a lay inspector. It was necessary to consider not only the financial means of the applicant, but the nature and probable future of the case. It was when splints and appliances and constant nursing were required that parents who were in fairly good circumstances felt the need of hospitals and desired to gain admittance for their children. A lay inspector cannot tell whether a long treatment or an operation is necessary, and therefore it is urged that there should be a medical as well as a lay control. It does not follow, however, that this medical control should be provided at the hospital. The medical control can be exercised by the applicant's private practitioner. If the lay inspector ascertains that the applicant can afford to pay, admission can safely be refused. If the private practitioner whom the applicant would have to consult finds that the case is so serious and entails such expensive treatment as to be beyond the patient's means, then, and when armed with medical evidence to that effect, the applicant could return to the hospital. The case would then be decided, not by the lay inspector, but by the medical staff, and the patient would probably be admitted. In the meanwhile, however, that comparatively well-to-do patient would have paid at least a few medical fees before being taken into the hospital, and his local practitioner would have had a chance of dealing with the case.

The great objection is not against serious cases, but against the crowd of trivial cases that block up the out-patients' room and occupy and waste the time of the consulting honorary physicians. A former house surgeon at the Children's Infirmary assured me that he sometimes had 150 patients in a day. He had to work five hours at a stretch, sometimes nine hours, and was often up till midnight. Certainly he was much too busy to investigate cases of abuse. Numbers of women came there wearing seal-skin jackets. He remembered that one patient told him her father owned eleven carts, and he recognised a very elegant lady applicant as a frequenter of one of the most fashionable churches of Liverpool. As the recognition was mutual this particular patient did not return to the hospital. Another medical man related to me that on one occasion some wealthy people drove up from the suburb of Waterloo with their carriage and pair. They stopped within 200 yards of the Children's Infirmary and then made their servant get out and take their child to the

hospital. The abuse of hospitals by persons who could afford to pay gravely aggravates the sufferings of the poor, who have the right to claim that the whole of the time given by the visiting medical staff should be devoted to them and not in part to the rich. This evil is particularly evident at the Children's Infirmary. Here a visiting physician with one assistant and a nurse had, a short time ago, to see 156 patients in the space of from two to two and a half hours. It is hard to make patients wait so long, especially children, as they become very fretful. Many who come from great distances are away from home in all perhaps as much as five hours. It is not right that a sick child should be kept out so long. Then what can be the condition of the atmosphere in the over-crowded waiting-room? It is absurd to expect the house surgeon to detect abuse when there is such a pressure of work. Nor can practice conducted under such hurried conditions be considered as likely to advance medical science. The trivial cases should be weeded out and so also should all applicants who can afford to pay a private practitioner. Concerning some of the other charities of Liverpool, one of the visiting physicians of the Northern Hospital explained to me that they had no out-patient's ward, the only out-patients were those persons who had met with accidents. As for the in-patients, he did not think well-to-do persons would like the control exercised over patients. Being surrounded by the docks this old hospital had such a forbidding appearance that he did not think any body with means would try to gain admittance. But they hoped soon to construct a new building, with modern appliances and more cheerful in appearance. Then doubtless abuses will occur, particularly as a large out-patients' department will be attached. At present the friends who visited the patients showed that there was no abuse, for though an applicant might seek to disguise himself by wearing shabby clothes his visitors would not take the same precautions. Recommendations were given in a very injudicious manner. Dispensing chemists, for instance, would treat patients, and when they found the case was beyond their range would give their customer a recommendation to the hospital. Women also often came with letters from wealthy subscribers, but were not sufficiently ill to be taken into the hospital, yet if they were refused the subscriber would be offended. Grave cases might be kept out of the hospital because slight cases had been taken in so as to oblige subscribers. Clergymen were particularly addicted to sending unsuitable cases to the hospital.

At the Southern Hospital, as at the Northern, there is no general out-patient department. One hour is given for receiving old patients who were formerly in-patients. Some out-patients are seen who come only for consultation. They receive no medicine and are not treated. They must bring a letter from their private medical adviser and a written answer to the questions put are sent to the medical man who has given the recommendation. A special room is set aside for this form of consultation and the applicant must have a subscriber's ticket or the case must be very urgent and not admitting of delay. There are paying wards in this hospital, but it is claimed that strict watch is kept by the committee to prevent abuse. It is in the women's ward that abuse is most likely to occur.

Referring once again to the dispensaries, which I described in my opening article on Liverpool, I have had the advantage of speaking with a medical man who was for some years the paid medical officer of one of these dispensaries. He complained that he often had to see as many as 150 patients in the morning at the dispensary; then in the afternoon and evening he had to call on some thirty to forty more patients at their own homes. He soon discovered that the great thing was to be as disagreeable and as unpleasant as possible, so as to avoid being called out too often. Then if a person came with a broken head it simplified matters to refer him to the hospital, which was close at hand and had a service overlapping that of the dispensary. As there was a large Irish population in the neighbourhood, among whom many quarrels and fights arose, the defeated and battered pugilists came to the dispensary eager to get a medical man's written order so that they might prosecute their victorious adversaries. If he refused to give the order the dispensary became unpopular. At first, as he was dealing with an extremely poor population, he imagined it was best to give the simplest and as few prescriptions as possible. But as the patients have to pay 1*d.* for each article they get, he soon found that the medical man who to the required mixture added an ointment, a gargle, and a brush, raised the receipts from a penny to fourpence, greatly to the glory and advantage of the institution, which in its annual reports thus appeared to be doing very much more work. It was difficult to get to bed till after midnight, and then he was almost certain to be called up before the morning, probably by a small boy who wanted a pennyworth of linseed meal.

The bitterest complaints against the abuse of hospitals will naturally be heard among the general practitioners whose clients for the most part reside in houses rented from £15 to £30 a year. None of these people are rich, though many have comfortable and well-furnished homes. They can all well afford the ordinary half-crown fee for the treatment of the usual every-day complaints. Where expensive operations are necessary, together with lengthy treatment and the constant attendance of skilled and trained nurses, resort to the hospital or to the paying wards of a hospital is very often justifiable. The loss of such patients is not a general subject of complaint. It is the more frequent and less serious illnesses which constitute the main sources of income for the general practitioner, and it is a serious matter if even these trivial cases are to be taken to the hospital. There are also some small dispensaries which profess to be charities, but seem to be mere speculation. Here a charge of sixpence is made, and many well-to-do people frequent these dispensaries. They do not quite like to go to the hospital for they know they can well afford to pay the usual fees. The sixpenny dispensary is a sort of halfway house; it satisfies their pride to give the sixpence and does not hurt their pockets. Any pretext is good enough to avoid paying a medical man's bill. There is an increasing tendency to resort to these dispensaries or to the hospitals. A general practitioner offered to show me some streets where he used to attend most of the inhabitants, and this brought him in about £60 a year. Now he has no patients at all in that quarter, and he is convinced that they have not gone to a rival practitioner, but that they all frequent the hospitals. The Hospital Sunday Fund has done much harm, I am informed, in Liverpool, because the people who have given a few pence to it imagine that they have a right to go to the hospital. Among those who are on the borderland of acute poverty there is also a great danger that the acceptance of medical charity may be the first step in the downward grade to pauperism. Such persons having obtained medicine from a charity will soon want to have blankets, coal, clothes, &c., from other charities. Specialism in the treatment of diseases and the institution of trained nurses have also greatly increased the tendency to resort to hospitals. A person of small means will argue that though he can afford to pay for an ordinary practitioner he cannot afford to pay to see a specialist, nor can he employ a trained nurse. Therefore he strives to go to the hospital. In very serious cases, as already observed, this would not so much matter, but the patient is prone to think that his case, however trivial, is serious enough to make him seek the very best advice. By going to the hospital he hopes to consult a celebrated specialist for nothing, and this as often as necessary. By remaining at home he will only see a general practitioner and it will cost him half-a-crown per visit. He does not realise that, especially for so simple a complaint, the ordinary practitioner is not only amply qualified to deal with the case, but may deal with it better, because he will give more time to it than can be spared at the hospital. Nevertheless, so great is the desire to save a practitioner's fee, that patients will even carry their children, when suffering from pneumonia, to the hospital rather than call in the local practitioner. If the medical man is sent for, some neighbour is sure to protest that it is a waste of money when the hospitals are close at hand and available to almost all comers. Thus the local practitioner finds that a large section of the community only send for him in a case of emergency. Then when the crisis is over and the patient a little better he is told, after one or two visits, that his services are no longer required. On inquiry he discovers that his patient now goes to the hospital. Not only is this an economy in respect to medical fees but also in respect to the cost of medicines. Dispensing chemists will make up prescriptions given at the Royal Infirmary for half the usual price.

The ingenuity displayed by rich people to get advice at a hospital is somewhat startling. For instance, I was told of a case where a "lady" borrowed her servant's dress so as to be

admitted without question as an out-patient. Another "lady," less prudent, and whose appearance excited suspicion, was asked what her husband was. She replied that he was a soldier. This was true enough, for her husband was a Major-General of the British Army! A general practitioner assured me that, in his district, there were any number of persons paying nine shillings a week rent, who never dreamt of sending for a medical man, but always resorted to a medical charity. Several general practitioners also made specific complaints against the hospitals. Thus I was told that at a special hospital for women ordinary as well as uterine complaints were treated. When an accident occurred anyone, however rich, might go to a hospital; that, being an emergency, was quite fair, but the patient need not be told to return on the morrow to have his wound dressed; he might be left to the care of his local practitioner. Then the question is asked whether hospital ambulances should not be allowed, when so desired, to convey patients in cases of sudden illness or accident to their own homes instead of taking them to the hospital.

Such are some of the grievances about which complaints are made in Liverpool. I do not pretend to have exhausted the list. The inquiry might be prolonged indefinitely, and doubtless many more interesting facts could be ascertained. Enough, perhaps, has been said for the present, and I will only add a few words concerning the efforts that have been made to cope with the difficulty. In 1877 the Liverpool Medical Institution appointed a sub-committee to report on the subject. This committee did not find much abuse in respect to the in-patients, but declared there was a great deal of abuse with regard to the out-patients. They also thought that the multiplicity of charities with different buildings and different staffs involved a great waste of money. Subsequently Dr. Robert R. Rentoul, who throughout has been very active in stirring up the whole of this question, published some startling statistics. Taking Liverpool and some suburbs his statistics extended over a district of 43,547 acres with a population set down in the census of 1881 at 686,461, and which he estimated at 717,569 for the year 1883. During that year Dr. Rentoul showed that the 22 voluntary medical charities received 22,245 in-patients and 223,322 out-patients. Then there were 13 other medical charities that had given relief to about 6,500 persons. But these figures are not quite accurate, for sometimes an in-patient becomes an out-patient and thus the same individual is accounted for twice over. Adding to these figures 38,755 cases of medical relief granted by the Poor-law unions and free medical relief given by private practitioners, we have a total of 290,822 persons, which Dr. Rentoul reduces to 272,372 by taking off certain percentages for in-patients who become out-patients and certain percentages for in-patients registered as fresh cases more than once, and allowing also for out-patients transferred to the in-patient department. This calculation is based on the results attained by a Birmingham Medical Commission which made inquires for the purpose of ascertaining the proportions. Dr. Rentoul[2] sums up as follows the result of these statistics:—"As the estimated population of the area, which included three unions, is placed by me (for 1888) at 717,569 (the population in 1891 was 725 300), it follows that 1 in every 2·6 persons received free medical relief. It would not be fair to say 1 in every 2·6 of the population of the city received relief in that year, as no doubt a large proportion of patients came from beyond the city boundary. For this reason I have taken the much larger area."

A committee was next appointed at the Liverpool Medical Institution. This committee, numbering forty members, consisted of hospital physicians or surgeons and general practitioners. Its object was "to decide on the best means of checking the abuse of public medical charities; to consider what classes shall be eligible for charitable relief;" and to consider how they shall receive efficient treatment. Some of the best-known and leading members of the profession were on that committee. It was soon found that the committee could not readily arrive at any definite conclusion. There was a great deal of dispute as to what constituted hospital abuse. Nor could the committee agree as to the number of different patients treated, for one single patient might be enrolled two or three times in a year at the same or at different hospitals, and it was urged that there were errors and exaggerations in the book keeping. At the fifth meeting it was agreed in principle that doubtful cases should be sent to the "Central Relief Committee" (Charity Organisation Society). But it was pointed out that this had been attempted at the Children's Infirmary and had been found impracticable on account of the expense. It soon became evident that there was a great want of cohesion among the members of the profession. This weakness is, perhaps, more marked at Liverpool than in most other towns for there are greater racial or national differences between the medical men. There are English, Scotch, Welsh, and Irish, and for purposes of common action the latter may be looked upon as something worse than two nationalities. It is far more difficult to bring about common action and harmonious intercourse between an Irish Orangeman and an Irish Nationalist than between, for instance, an Englishman and a German or a Frenchman.

The committee did at least agree that a sharp distinction should be made between in-patients and out-patients. For the latter they proposed a wage limit of 15*s.* a week for single person and £1 for married couples. At the final general meeting this figure was raised to 20*s.* and 25*s.* respectively. Ultimately, after more than twenty meetings and discussions that lasted for many hours, a series of eleven resolutions were adopted and ratified at a general meeting. The first resolution insisted on the necessity of a uniform system of inquiry into the pecuniary circumstances of all patients and the second imposed a wage limit. Both these resolutions have remained a dead letter. The third resolution stated that each case for in-patient relief should be judged on its own merits, that there should be no wage limit, but that no one should be admitted who "on investigation is considered able to pay for treatment, suitable to his particular case, at his own home, except in case of accident or other emergency." The fourth resolution advocated that in the latter case a charge should be made, if the patient could afford to pay—that is, if his means exceeded the "limits for out-patients, and where it is considered that in-patients could have proper home treatment provided." The following is the text of the other resolutions:—

"V. With regard to the provision of medical treatment for those who are ineligible for charitable relief, the committee decide not to recommend the interposition of a new institution between hospitals and medical practitioners, because it is found that qualified practitioners give their services at rates within the reach of such classes.

"VI. Under the head of suggestions as to the working of medical charities, the committee, believing that such institutions have been founded for the benefit of the sick poor, earnestly request that the practice of receiving payment from such patients be discontinued.

"VII. They recommend that all medical charities, when publishing their annual reports and balance-sheets, adopt a uniform system of statement and accounts.

"VIII. They also recommend that a Central Committee be formed, whose object shall be to deliberate and advise on the administration and management of Medical Charities; that this Central Committee include representatives of the medical charities desiring representation, the Medical Institution, the Central Relief Society, the Hospital Sunday Fund Committee, and the Hospital Saturday Fund Committee.

"IX. That before the end of the year the President of the Medical Institution shall, in the name of the institution, request the Mayor to call a public meeting for the purpose of considering the foregoing proposals for a Central Hospital Committee, and for the taking action thereon.

"X. That a small committee be appointed by the Council to assist the President in carrying out Clause IX. to a successful issue.

"XI. That a copy of this report be sent to the medical journals and the committee of the various medical charities in and about Liverpool."

Leaving local details aside, it will be seen that the Resolutions VIII. and IX. involve a big principle applicable to all great centres. The formation of a central committee at which all medical charities were represented would have for its first object the prevention of competition between these charities. But what power is there to force a competing charity to adhere to such a committee? In this respect the presence of representatives of the Sunday and Saturday Hospital Funds might be useful, for they might refuse to give aid to those charities that would not submit to the common discipline. The difficulty is to get such a committee started. Perhaps for this purpose legislation, something on the same lines as the compulsory insurance in Germany, may be necessary. It is not easy, however, to persuade the public to move in such matters. The idea was that it would be possible to create a central hospital committee under the pressure of a large public meeting convoked by the Lord Mayor. The persons, however, charged with the duty of approaching the Lord Mayor for this purpose lost heart. The many meetings held by the committee elected at the Medical Institute had on the whole been so unsatisfactory, the results so indefinite, the opinions so contradictory,

[2] The Reform of our Voluntary Medical Charities. Baillière, Tindall, and Cox. London. 1891.

that it was felt to be hopeless to attempt to influence the general public when the medical profession itself had no clear conception of what it desired or of the practical means by which its wishes might be realised. Such in any case seems to be the most plausible way of accounting for the fact that the Lord Mayor was not approached, that the great meeting was not held, and that, in a word, nothing whatever was done. That the prolonged efforts, the numerous meetings, and the lengthy discussions held by so many prominent medical men in committee assembled should have resulted in such an utter collapse has naturally been the subject of many comments and not a few recriminations. Nevertheless such is the situation. There is no disguising the melancholy fact, and with this I take my departure from Liverpool in search of fresh woods and pastures new where I hope to find something more encouraging to record.

MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

The Infirmary Question.

THE reports of the three sub-committees of the grand committee appointed to consider the future development of the Manchester Royal Infirmary have been published. No. 1 sub-committee reports in favour of rebuilding on the present site and providing for 428 beds, with the necessary administrative requirements. The encroachment on the land at present vacant would be "696 yards, or 5 per cent. of the present unoccupied space within the infirmary railings." The report of No. 3 sub-committee recommends alteration and re-arrangement of the present infirmary, the beds to be reduced to 190, and the building of a supplementary hospital of 250 beds elsewhere. The "elsewhere" is, of course, Stanley-grove, on land belonging to the Owens College, which the College is said to be in a position and to be willing to transfer absolutely to the hospital on payment of chief rent and charges amounting to about £250 a year, "provided certain provisions are made for the teaching of the students by professors of the College, which provisions (so the report says) are merely equivalent to the maintenance of the existing arrangements between the medical school and the infirmary." It goes on to say that it would be desirable to acquire 7000 or 8000 square yards of adjoining land, "which they have reason to believe it will not be difficult to purchase"—to be paid for, of course, by the infirmary. The plans for this branch hospital provide for 278 beds. No. 2 sub-committee had a scheme for re-arranging the present building and raising it by one or two storeys, but abandoned it in face of the decision of the grand committee to recommend re-building on the present site. A great deal may be said for and against all these schemes, and so we find the papers full of leading articles and letters, signed and anonymous, with all sorts of criticisms and suggestions. The City Council have discussed the question of re-building, and the objection taken is chiefly that the open space round the infirmary will be curtailed to what they consider a serious extent. The speakers seemed to think the preservation of the space as it is of much more importance than increased provision for the sick and injured. If it is of such value to the city—and the corporation is the guardian of open spaces, a comparatively new *rôle* for it to assume—let it buy the infirmary property at a fair price and so provide the means for building a hospital elsewhere, as conveniently near the Owens College as may be, but where it can preserve its independence. It would not be very difficult to find a site where there would be freedom from all vassalage and yet sufficient proximity to the College. This would be an immense advantage to the College itself, which cannot hope to build, much less to maintain, a hospital for many long days to come, and its resources would not be diverted from the admirable work it is doing at present.

Accidental Poisoning at Monsall Hospital.

An inquest was held on the 30th ult. at the Monsall Fever Hospital on the case of a boy eleven years old who had been admitted for scarlet fever. A mixture containing a small dose of strychnine was to be given every four hours. In the same ward was kept a solution of strychnine "consisting of four drops of the poison to one drachm of water." The nurse gave eight drachms of this, being under the impression that there were four drops to the ounce. In reply to the coroner she said "she thought she mistook the medical sign on the bottle. She had had about twelve months' experience of hospital work, but had no knowledge as to the mixing of medicines." Dr. Marsden, the resident medical officer, did all that was possible to save the boy, but to no purpose. He said "thirty-two drops of the strychnine solution would be certain death to a boy of Johnson's age." The verdict was "Accidental death." The coroner said although it was an accident he thought it was due to a great extent to the fault of the system which left the prescription to be interpreted by a nurse with only twelve months' training. Though the medical men were used to signs and looked on them as simple he could not agree that this was a sign which such a nurse could easily read. "If the indication on the bottle had been written in plain English instead of in signs there would not have been the same possibility of mistake. In his opinion the hospital authorities were to blame for allowing such a mistake to be possible, and a better system ought to be adopted for labeling poisons. The mistake had been invited by the system, and although the nurse had made a mistake she was to be sympathised with." The only way to prevent such deplorable occurrences is to keep strong solutions of poisons locked up till the moment of administration. The attention would thus be aroused, it would be known that a deadly poison was being dealt with and that the dose must be carefully measured. This would give a little trouble, but it would now and then save life, for the catastrophe just chronicled is not singular.

The Sewage Question.

At the last meeting of the City Council the minutes of the Rivers Committee contained the announcement that a tender amounting to £25 000 had been accepted for the construction of a sludge steamer.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

The Chair of Medical Jurisprudence in Edinburgh University.

As was stated last week, Sir Henry Littlejohn is a candidate for this chair. He has issued and circulated a statement in favour of his candidature in which he bases his claim upon having been so long a lecturer on the subject in the extra-mural school of medicine and upon the opportunities he possesses as police surgeon to teach the subject practically. He also refers to his position as Adviser to the Crown in Criminal Cases and thinks his appearances in court in such cases would be a way of practically showing students how to comport themselves when giving evidence. Sir Henry Littlejohn expresses his willingness "to come under an obligation neither to ask nor to accept of any retiring allowance from the University funds on the termination of my five years' extension." This is to meet an objection which might be urged against his claims on the score of age.

The Edinburgh Royal Infirmary and the Tenure of Office of the Honorary Staff.

There has been considerable annoyance felt by the staff of the Royal Infirmary at a proposal to make the honorary appointments yearly, and to place in the hands of the board the power to practically dismiss any member of the staff on short notice and without necessarily making any statement of reasons for so doing. It is understood that as the result of a somewhat warm controversy this offensive proposal has been negatived.

Lord Kelvin.

The celebration of Lord Kelvin's jubilee as Professor of Natural Philosophy in the University has been followed by the recognition of his jubilee as a member of the Glasgow Philosophical Society. The society have presented Lord Kelvin with an address and elected him an honorary member. A bust, subscribed for by the members, has been placed in the society's rooms and a replica presented to Lady Kelvin. The proceedings in connexion with these events were presided over by Dr. Ebenezer Duncan, the president of the society, and the address was read by Dr. Freeland Fergus, the honorary secretary.

Consumptive Homes of Scotland.

Mr. Quarrier, the originator of this scheme, announces the receipt of a cheque for £1000 from an anonymous donor for the purpose of erecting a lodge with entrance gates to the homes. This sum completes a total of £19,000 towards the £60,000 estimated to be necessary to complete the undertaking. In the complete scheme, as defined by Mr. Quarrier in his letter to the local papers, it is contemplated to erect a dispensary in Glasgow at a cost of £3000. It is impossible to believe that the advising committee of medical men understood to be acting with Mr. Quarrier can approve of this part of the scheme. Such a dispensary is entirely unnecessary. The out-door departments of the general hospitals and various other charitable dispensaries already provide ample facilities for the treatment of cases of chronic phthisis, and a new dispensary for such cases will be merely a new competing institution in a field already fully occupied. Public money spent in this way will be public money wasted. That some arrangement should be made in the city for the examination of patients proposed to be sent to the homes at Bridge of Weir is obviously necessary. It is, indeed, most desirable that an adequate medical guarantee of the correctness of the diagnosis and the suitability of the case for treatment shall be secured, but this can surely be provided without the expense of a new dispensary for chest diseases. Ample provision in this direction already exists in Glasgow, and it is to be hoped that the proposal as defined will be reconsidered.

Glasgow Maternity Hospital.

Mr. Robert Jardine, M.D. Edin., M.R.C.S. Eng., has been promoted to be one of the obstetric physicians to the hospital. His promotion leaves a vacancy in the position of assistant physician.

Glasgow University.

The senate announce a new departure in the shape of free public lectures to be delivered on Monday afternoons. Among the lecturers are Professor Coats, whose subject is to be "Inflammation"; Professor Young, who will speak on "Illustrations of History from the Hunterian Coin Room"; and Professor McKendrick, who will lecture on "Sound Waves as revealed by the Phonograph." The course is to be opened on Jan. 11th with a lecture by Lord Kelvin on "The Dynamics of a Crystal."

Aberdeen Medico-Chirurgical Society.

At a meeting of the Aberdeen Medico-Chirurgical Society, held on Nov. 19th, the following office-bearers were elected: President, Dr. G. M. Edmond; Vice-president, Dr. J. McK. Booth; Secretary, Dr. G. Dean; Recording Secretary, Dr. T. Milne; Treasurer, Dr. J. Gordon; and Librarian, Dr. A. T. G. Beveridge. The society at present consists of sixty-five members; during last year there were nine additions, one death, and one withdrawal.

Dec. 9th.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

The Proposed Isolation Hospital for Scarlet Fever.

THIS question is still unsolved. The buildings in the neighbourhood of the Pigeon House Fort will come into the possession of the corporation after some months and will doubtless serve henceforward as a means of relief to a state of congestion of the general hospitals such as that caused by the present epidemic. The President of the Royal College of Physicians in Ireland, Sir Francis Cruise, Dr. Samuel Gordon, and the authorities of the Army Medical Department have recently expressed their strong approval of the site. I understand that the corporation have the right to establish a hospital for infectious diseases, but if they did so the expense would fall altogether on the occupiers of Dublin houses, who are at present very highly taxed. The moneys expended by the board of guardians, on the other hand, come from the owners as well as the occupiers of property; the outlying parts of Dublin, such as Rathmines and the Pembroke township, are, as well as the city, under their care; while, lastly, the guardians are obliged by law to provide hospital accommodation for fever patients. Sir Charles Cameron, the chief medical officer of health for the city, has proposed that the corporation should hand over the buildings at the Pigeon House to the two boards of guardians, to be equipped as a convalescent hospital and to be managed by them jointly. This proposal is still under consideration. In the meantime the scarlet fever patients are distributed among the general hospitals, who are paid from 1*s.* 6*d.* to 2*s.* 6*d.* per head by the guardians, who thus satisfy the requirements of the Act of Parliament, which does not state that they shall build or establish a hospital, but that they shall provide hospital accommodation for infectious diseases. It has been found possible to obtain beds for all the scarlet-fever patients up to the present, but the strain on the resources of the general hospitals has, as might have been expected, caused other infectious cases to have been unable to obtain admission. No less than twenty-seven cases of measles were notified last week, so that there is danger of that disease, in addition to scarlet fever, becoming epidemic in the city.

The Proposed New Hospital in Belfast.

A most important statement, signed by all the members of the medical staff of the Belfast Royal Hospital, has just been published, pointing out the great and crying necessity for a new hospital. Attention is drawn to the fact that the present hospital accommodation in Belfast is very deficient for a city with a population of 300,000. The principal hospital contains only 189 beds, and the total number of hospital beds in Belfast (exclusive of the Poor-law hospitals) is not more than 470. In comparison with this, Dublin (which is now smaller than Belfast) has 10 general hospitals and 2500 beds. But in addition the present accommodation in the Royal Hospital is also defective in quality, as might be expected in a building the main block of which was erected so far back as 1817. Larger, airier, and more cheeful wards are required, and more accommodation, especially for fever cases. The staff are unanimously of opinion that a large new hospital on a new site is urgently required, built according to modern ideas, and they feel strongly that the erection of a new hospital is essential to the efficiency, progress, and continued prosperity of the large medical school of Belfast (the only centre of medical education in Ulster), and would have a most favourable influence upon the training of the medical men of the future. Many feel that when the needs of the city are fully known the people of Belfast will not be behind their contemporaries in this most necessary and benevolent work. The Lord Mayor has called a meeting of the citizens for to-morrow, Dec. 9th.

The late Dr. Richard Ross.

On Sunday, Dec. 6th, at a special service in St. Andrew's Church, a memorial window, erected by his wife and children to the memory of the late Dr. Richard Ross, was unveiled and dedicated by the Lord Bishop of Down. A very large number of medical men of Belfast, where the late Dr. Ross had been so well known as a physician for nearly half a century, were present. The window consists of three lights representing the parable of the Good Samaritan.

Battle of the Clubs at Cork: Presentation to Mr. Philip Lee, Honorary Secretary to the Cork Medical Association.

Last Wednesday there was a large and representative meeting of the Cork medical profession held in the medical society's rooms for the purpose of making a presentation to Mr. Philip Lee, in recognition of the services rendered by him to the profession since the inception of "the battle of the clubs." The presentation consisted of a beautifully illuminated address and a very handsome Crown Derby dessert service. Dr. N. J. Hobart occupied the chair, and in a very felicitous speech assured Mr. Lee that he is held in the highest esteem by his professional brethren, and that they fully and entirely appreciate his unselfish and persevering efforts to maintain the status and dignity of the medical profession, not alone in Cork, but in the whole United Kingdom. He mentioned that for some time past it was in contemplation to express in some substantial form the gratitude of the medical men of Cork for the single-minded and untiring energy he had displayed in the discharge of his most onerous duties as honorary secretary of the Medical Association, and they considered his recent marriage a most auspicious occasion for tendering to him an expression of their recognition of the tact and

zeal he had exhibited on many trying occasions. On the part of the whole profession in Cork he wished Dr. and Mrs. Lee many years of the happiness always associated with the performance of good works. Mr. Lee thanked the chairman for the kindly sentiments he had expressed. Anything he had done was a labour of love, and much as he appreciated the handsome presentation made to him he valued far more highly the friendship and esteem of his professional brethren.

The Meath Hospital.

The ceremony of declaring open a bed, which has been added to the hospital as a memorial to the late Sir George Porter, Bart., was performed on the 30th ult. at the hospital by his Excellency the Lord-Lieutenant, who was accompanied by the Countess Cadogan and a large party of visitors. A meeting was held before the ceremony, at which Viscount Powerscourt filled the chair and spoke in strong terms of the high qualities of the late distinguished surgeon who for more than a quarter of a century had been his intimate friend. In reply to an address which was presented to his Excellency, Lord Cadogan delivered a graceful and eloquent tribute to the memory of the late senior surgeon to the hospital, who had the honour to be also Surgeon-in-Ordinary to Her Majesty the Queen in Ireland. As representative of Her Majesty his Excellency remarked that he could say that she sympathised with the staff of the hospital in the loss which they had sustained and that she would rejoice to hear of their doing honour to the memory of one so deserving and so much regretted. His Excellency then declared the memorial bed open for the reception of patients. A brass shield attached to it bore the following inscription:—

"In loving memory of Sir George Hornidge Porter, Bart., D.L., senior surgeon of this hospital, Surgeon-in-Ordinary to Her Majesty the Queen in Ireland, Regius Professor of Surgery University of Dublin, &c., who for nearly half a century most generously placed his skill and experience at the service of the sick poor in this institution. Died 16th of June, 1895. This bed was permanently endowed by subscriptions from his many friends and admirers as a tribute of affectionate regard. 1896."

Ulster Medical Society: Annual Dinner.

The annual dinner of the Ulster Medical Society was held in the Grand Central Hotel, Belfast, on Nov. 26th and was in every respect a very great success. The room in which the dinner took place was crowded, seventy-three members and guests being present. The President, Professor Symington, was in the chair, and the following were the toasts:—"The Queen, Prince and Princess of Wales, and other members of the Royal Family," proposed by the President; "The Lord-Lieutenant of Ireland and Prosperity to the Country," proposed by Mr. Fagan and responded to by the ex-president, Professor Sinclair; "The Queen's College and the Belfast Medical School," proposed by the President of the Royal College of Physicians of Ireland, Dr. Duffey, who was a guest, and replied to by the President of Queen's College, Rev. Dr. Hamilton. Dr. Hamilton drew attention to the jubilee of the College in January, 1897, at which, in addition to the inauguration of the Students' Union by the Lord-Lieutenant and the graduates' banquet, Sir Joseph Lister, Bart., had kindly consented to open the new physiological and pathological laboratories. The toast of "The Dublin Medical School" was proposed by the President. Dr. James Little, the President of the Royal Academy of Medicine in Ireland, who was a guest, in his very sympathetic and humorous reply stated that many years ago he had dined with a former President of the Ulster Medical Society in Belfast, and of those then present only two remained, both of whom he was glad to see that evening—Professor Cuming and Dr. Whitaker, medical officer of health for Belfast. Professor Cuming proposed "The Guests," to which Surgeon-Major Mulvaney, Rev. Richard Leaver, and Mr. Seddall, the Commissioner of Police, replied. Professor Byers proposed "The North of Ireland Branch of the British Medical Association," and the President, Professor Whitla, and the Secretary, Dr. John Campbell, responded. The last toast, which was received most heartily, was "The President of the Ulster Medical Society," given by Dr. James Little, to which Professor Symington replied. During the evening a musical selection was contributed by Mr. W. G. Mackenzie, Dr. McKisack, Dr. Leslie, and Dr. J. A. Lindsay, and recitations were given by Dr. J. S. Morrow and Dr. John St. C. Boyd.

Dec. 8th.

ROME.

(FROM OUR OWN CORRESPONDENT.)

The Massacre in the Somali Country.

THE year closes as it commenced, with news of disaster from what to Italy may in every sense be called the "Dark Continent." Captain Cecchi, a veteran African explorer and Italian Consul, had, in the interest of a private company, moved inland from the Benadir coast for exploratory purposes and had completed the first part of his enterprise. The success of this induced him to undertake a second expedition at the instance of another company. With an escort so small as to imply total absence of danger, and reinforced by officers of the navy attracted to his side by scientific among other motives, he fell after five hours' march into an ambuscade, from which he extricated himself with some loss. Retreating to the coast he had to fight his way against ever-increasing hordes of natives till he himself was killed and sixteen others, partly officers, partly sailors. Their bodies have been recovered, and among them is that of Dr. Alfredo Smuraglia, a young medical officer of the highest promise, just entering on his twenty-seventh year. His death adds another to the many losses sustained by the profession in these ill-starred African expeditions.

The Maragliano Serum.

Statistics have placed it beyond doubt that as many as one million cases of diphtheria have already been cured by the Behring serum, and there is ground for believing that that antitoxin would have scored a still greater success had it oftener been applied before the diphtheria poison had established a fatal foothold. The same results may yet be attained by the Maragliano serum in pulmonary phthisis; but the nature of this latter disease is such that the antitoxin can never assert its power so rapidly and so decisively as in diphtheria. It is in private practice, moreover, that Dr. Maragliano and his followers have had most success, and for reasons that are obvious. In such cases the tuberculous patient generally sees the consultant in good time; he is surrounded, as a rule, with the comforts and the careful tendance of home; and he can often reinforce the cure by change of scene. In hospital practice, on the other hand, the patient, in ninety-nine cases out of a hundred, is far gone in the disease; his strength has been reduced by pyrexia or hæmoptysis; his nights have been impaired by harassing cough; and his resisting power is often low through mal-nutrition. And yet even in this latter less favourable type of case Dr. Maragliano, as shown in these columns, has had most encouraging success. His followers, mainly in the Neapolitan school (which, by the way, was at first rather slow to adopt his treatment), have been not less fortunate; and now Dr. De Renzi, the dean of Italian clinicians, who for twenty-nine years has held the chair of clinical medicine at Naples, announces that he has had forty-four cases of cure by the Maragliano serum in his wards and equally gratifying results in private practice. Like all others of his colleagues who have used the antitoxin he found its efficacy most marked when the patient was seen early and when complications were at their minimum. One lesson he profited by in his clinique, and that was (as Maragliano himself had inculcated) not to despair when even 200 injections had failed to achieve the effect desired. He observed, indeed, that while improvement had declared itself even in the most intractable cases, he had only to suspend the treatment for a brief interval to witness the rapid exacerbation of all the symptoms and to resume the injections "in tutta fretta" (in all haste). Sero-therapy, said Dr. De Renzi to a colleague the other day, has a great future. It is rational and physiological; it corresponds to what the Father of Medicine meant by the *φύσις ἰατρική* and what we moderns understand by the "poteri fisiologici superstiti" (the surviving physiological forces). In his own clinique Dr. De Renzi had had convincing proof of the action of the Maragliano serum "contro le proteine tubercolari." With the "tuberculine" of Koch inoculated in phthisical patients to the amount of 5 milligrammes he had obtained a strong reaction; but applying the same "tuberculine" to patients already under the Maragliano treatment the reaction was much less strong, showing that, *pro tanto*, they had become

immunised against the "proteine tubercolari." In proportion as he increased the number of injections of the Maragliano serum he augmented the immunity against the action of the tuberculous poison, until after thirty or forty injections the reaction to the same dose of tuberculine was barely appreciable or entirely non-existent. Dr. P. Schivardi, who reports these views of the Neapolitan consultant, adds that in Dr. De Renzi's opinion there is no remedy for phthisis superior to the Maragliano serum. It seldom fails to relieve, and if applied in time and persevered with under reasonably favourable conditions it almost invariably results in cure.

Falsification of Wines: a Warning.

The extraordinary rainfall of last summer and autumn has had effects on wine culture which are simply disastrous. The quality of the grape has been poor beyond precedent and the wines made from it are correspondingly inferior in strength and colour. Spirit of the worst kind has been added by many producers to remedy the former defect, while to make good the latter recourse has been had to colouring matter evolved from *catrame* (tar). The wine so manipulated and made noxious is, in terms of the law, prohibited from sale, and in Tuscany, particularly within the last few days, the sanitary inspectors have sequestrated large quantities. At Florence alone about 1000 flasks have been seized and sent to the municipal laboratory for analysis. As soon as the nature and amount of the noxious adulteration are ascertained the producers will be denounced to the legal authorities. So urgent is the danger to the consumer, especially the foreign and experienced, that with commendable promptitude the Enological Commission has been convoked by Signor Guicciardini, Minister of Agriculture, so as to intercept the wine before it is transferred from cask to bottle or *fiasco*. The Commission appeals for aid to the press to put the public on its guard, well aware that loss of custom is a more powerful deterrent to the adulterator than even the fines imposed by the "pretore" or sheriff.

The Health of Milan.

Few Italian cities receive more English-speaking guests than the Lombard capital, and few, it is fair to say, are more keenly alive to the hygienic duties such large, if but temporary, additions to their population impose. I have indicated from time to time the increased vigilance of the Milanese sanitary authorities in the prophylaxis of infective disease—notably, in the practical extinction of small-pox through stringent re-vaccination. To-day I can give further confirmation of the effective surveillance maintained over the public health. During October, 1895, the deaths amounted to 9067; but for the corresponding month of the current year they have sunk to 8569, in spite of an accession to the population of nearly 7000 inhabitants. Again, in November last there is a decrease of 100 deaths, as against the November of 1895. The vast drainage works now in progress may reasonably be expected to signalise their completion by a still further lowering of the mortality.

Honour to Dr. Behring.

Our Government have just conferred on the discoverer of the anti-diphtheritic serum the well-merited honour of Grand Cordon of the Crown of Italy.

Professor Durante.

The Senator Professor Durante, who holds the chair of Clinical Surgery in our university and is the recognised head of the profession in that department, has sustained a serious accident. Descending the staircase of a house in which he had been visiting a patient he slipped and broke his leg. The fracture was reduced without delay and the apposed surfaces kept *in situ* by an apparatus of felt. Within a fortnight he has so far recovered as to look forward to immediately resuming professional work.

Dec. 6th.

MONTREAL.

(FROM OUR OWN CORRESPONDENT.)

Serum Diagnosis.

THE serum diagnosis of typhoid fever is being carried on with great satisfaction to the general practitioners by the Provincial Board of Health. A schedule of directions for taking the blood and sterilised paper on which to place it is sent to any physician desiring it, or he may call at certain druggists' shops and obtain the paper; these are attended to by the bacteriologists and a report furnished without charge next day. Dr. Wyatt Johnson and Dr. McTaggart, the experts of the Board, brought the matter before the last meeting of the Medico-Chirurgical Society and made some reports, also demonstrating the method. Pfeiffer and Vidal have been accorded the priority in urging the method, and now by the dry method, as explained by Dr. Wyatt Johnson, all that is necessary is that a drop of blood be taken from the cleansed finger, placed on the paper and folded up. Two hundred and fifty-seven trials had been made, and in 95 per cent. of the cases suitable for trial an assured diagnosis was accurately made. The clumping or aggregating of the bacilli is easily seen with a one-sixth dry objective. Forty-nine control examinations were made from cases known to be suffering from diseases not typhoid, not one of which gave the reaction. In only one case, which would have been positively pronounced as typhoid from the clinical conditions, was it impossible to get the reaction. As there was no means of verifying this case by section, it does not necessarily detract from the value of the test. The test may be got in two days, but generally not before the fifth, and may be found up to one year or more after convalescence. Eighteen hospital patients who had been discharged well after typhoid were looked up, some of whom had been out for several months; in seventeen the diagnosis of previous typhoid could be made bacteriologically. The difficulties that have been brought out generally consist in neglect of the instructions. Some samples had been literally cooked by too much heating, others had been allowed to gather dust and germs, or too small a quantity had been sent, and so on. Sufficient blood should dry on the paper to make a distinct scale. Dr. Wyatt Johnson demonstrated his method somewhat dramatically before the American Public Health Society. He undertook to report in one hour on six cases. The specimens were given him without any information, the sources of the bloods being indicated in a sealed envelope to be opened only after the test. His report was definite and accurate in five, and the sixth was reported "doubtful, probably not typhoid": it was a case of heart disease. In the discussion Dr. Adami, Dr. Finley, and others spoke of the great value of this method, and praised Dr. Wyatt Johnson for popularising it.

Civic Hospital Matters.

Civic hospital matters have given rise to much comment in the press, lay and professional. Anything done in the province of Quebec under civic or governmental control must have its Protestant and Catholic sections. It has been so in the Civic Infectious Diseases Hospital, Montreal. The building, a rather poorly constructed affair, was divided off and the Protestant portion was officered by medical men and nurses sent by the Montreal General Hospital, which institution was to receive £1500 per annum for the service. Recently, for alleged reasons of economy, the city council decided to dispense with the staff on the Protestant side and put all under the health committee and the medical health officer of the city. At once loud protestations were made from the English side of the community, the medical society, the Ministerial Association, and the English press. The clamour was avowedly based on the supposition that the medical service would not be so satisfactory under civic control as before. The fine results, especially in the treatment of diphtheria with antitoxin, on the Protestant side were referred to, and much pressure was brought to bear on the City Council to reconsider the matter. They, however, have not done so, and the officers previously sent by the Montreal General Hospital, who had at first refused to vacate, have been required to give up attendance.

Sporadic Leprosy.

A case of leprosy was discovered post-mortem in Montreal a short time ago. It was in a Chinese resident, of which kind of population we have five hundred. The man was found in a dying state in one of the low-class boarding houses, into which the celestials crowd themselves. No suspicion of leprosy arose until the coroner's physician, unable to account for a peculiar eruption on the cadaver, tested scrapings bacteriologically, and unmistakeably found the bacilli. A thorough search was made through the Chinese quarter, but no other case was discovered.

British Medical Association.

The meeting of the British Medical Association to be held in Montreal is already causing some stir in medical circles. Numerous committees have been appointed and some are now at work. A fine handbook and programme will be issued to the members speedily so that time may be given to make arrangements for a holiday tour by visitors. A comprehensive and elaborate souvenir volume, copiously illustrated with the finest process work, has been contracted for; this will give all the information that the strangers would be likely to want as to Montreal and Canada. The great honour done our colony in the selection of a Montreal man as the President of the Association has been highly appreciated, and all branches of the profession are unanimous in agreeing that no more worthy and estimable a man among us could be found to bear the honour than Dr. Thomas G. Roddick, M.P. Our English brethren who come here for the first time will be surprised at the hospitals and institutions we can show them and the advanced state of surgical and pathological work and science teaching. Everything will be done to make the 1897 meeting a great success. The Government has subscribed handsomely, so that with city and individual subscriptions, the sinews of war, so necessary in all large undertakings, are well provided.

Nov. 21st.

PHILADELPHIA.

(FROM OUR OWN CORRESPONDENT.)

Proposed Municipal Home for Phthisis.

IT has been proposed by Mr. Lawrence Flick, President of the Society for the Prevention of Tuberculosis in this city, to establish a municipal home for phthisical patients. In the report of the Board of Health of the City of Philadelphia for 1895 appears the following: "It is gratifying to note the steady diminution in the deaths from consumption. There has been a more or less steady decrease in the fatal cases of this disease during the past eight years, and the 2499 deaths during 1895 are actually and proportionately less than for 1894, in which year the number was below that reported for many years. These figures point to a better knowledge of the management of this disease and a greater attention given to prophylactic measures and to the treatment of the disease." Such an institution as the above would doubtless make its influence felt. In 1894 measures were adopted favouring the notification of cases of tuberculosis and steps were taken to secure thorough disinfection of premises where the disease had prevailed. Nothing came of it, however, as notification is not compulsory and it is seldom that permission to disinfect can be obtained from a householder.

Hastening the Death of Incurables.

The Rev. Dr. Wendte, of Oakland, California, one of the most noted Unitarian ministers of the Pacific slope, has caused a great deal of discussion and not a little adverse criticism by his advocacy of euthanasia in the sense of hastening death, and thus speedily terminating the sufferings of incurables. In a recent sermon printed in the San Francisco *Call* he said, "But a step beyond establishing hospital wards is needed, and it is one which civilized society is ready to take. I refer to the humane disposal of those who are suffering needless and cruel torture, and whose death is inevitable. Why seek, as now, to prolong their agonies? Why exhaust the resources of medical science to keep them in misery? Would it not be a more Christian act to put them gently out of pain? We mercifully end the life of a suffering horse or dog whose restoration is impossible. Shall we be less merciful to our human kind than to the brute creation?" He further advocated the formation of a committee empowered to examine into and pass upon the merits of individual cases—the committee to be composed of four physicians, the district attorney, the chairman of the local board of health, and two citizens of irreproachable character—all to be selected by the Governor of the State in which the person lives. The sufferer must first make an appeal, then the consent of the family is necessary, and if upon investigation it is shown that all known treatment is worthless, that the suffering is great, and that the motive is entirely and solely humane, the committee may put an end to the misery. It will be remembered that about eighteen months ago a New York lawyer stoutly contended that it was a common practice among medical men to hasten the death of incurable patients. These statements would scarcely be worthy of notice, but when they have the endorsement of a prominent divine they sink deeper into the minds of the people, and before long are believed. No human agency is capable of prognosticating with absolute certainty the outcome of any illness, a fact not sufficiently appreciated by the laity.

The Act to Regulate the Practice of Medicine.

The following resolutions were adopted by the Illinois State Board of Health, Oct. 6th, 1896:—"Whereas the wise and progressive enforcement by our predecessors of the Act to Regulate the Practice of Medicine in the State of Illinois, passed July 1st, 1877, has resulted in a general but not uniform improvement of the methods of medical education throughout the United States and a material elevation of the standard of professional attainments and ability necessary to obtain the legal right to practise medicine in many States, thereby securing in such States a better equipped, more competent, and more scientific body of medical men, to the great gain and advantage of the people thereof: and, whereas this result has been obtained to the fullest extent in those States where the college diploma is not recognised as final but only as a qualification for examination by a board whose members are not connected with or interested in a college or teaching institution: be it resolved by the present members of the Illinois State Board of Health, with the fullest appreciation of the invaluable work of their predecessors, that medical education and the status of the doctor in medicine have outgrown the limitations of the Medical Practice Act of 1877. Now, therefore, be it resolved that said Act should be so amended as to require, first, that all applicants for the right to practise medicine and surgery or any of their branches in the State of Illinois shall demonstrate their fitness for such practice through an examination by a board of impartial, competent, and practical examiners skilled in the various branches of medicine and surgery, and no member of which board shall be connected, or affiliated with, or interested in, any diploma-granting college or teaching institution. Secondly, that no applicant shall be eligible to such examination, unless the legal possessor of a diploma of graduation from a medical college in good standing; resolved, that this board earnestly invite the coöperation and assistance of kindred boards throughout the United States to the end that uniformity of practice may ultimately obtain in the recognition of medical practitioners in all parts of the country; of all reputable medical colleges whose dignity and usefulness will thereby be promoted; of the medical profession of the State, as represented in the various medical societies, with the view of excluding the incompetent and unworthy from its ranks; and of the members of the forthcoming general assembly in this effort to protect the health and lives of the citizens of the State."

Controlling the Practice of Midwifery.

The State Board of Health of Illinois have adopted regulations controlling the practice of midwifery. Hereafter no person will be allowed to practise as a midwife unless licensed. Each applicant must obtain a certificate and register with an officer of the board, known as the "inspector of midwifery." She shall attend only normal cases. In complicated labours she must send for a physician. Failing to do this she runs the risk of losing her licence. Where the people are unable to pay a medical man, the nearest district physician employed by the city shall respond. The Act contains nothing relative to the qualifications for practice, but it is safe to assume that the board will demand a certain amount of preliminary training before granting a certificate.

The Transportation of Sick People and its Dangers.

The members of the State Board of Health of Colorado regard the indiscriminate transportation of sick people as dangerous and a menace to public health, and therefore recommend that invalids be required to obtain permits before they can travel in that State.

AUSTRALIA.

(FROM OUR OWN CORRESPONDENT.)

The Profession and Benefit Societies in New South Wales.

AT a meeting of the Sydney Clerks' and Warehousemen's Benefit Association, held on Oct. 7th, it was stated that matters between the association and the medical profession had reached such a stage that the directors did not consider themselves justified in proceeding further without the distinct approval of the members. The profession wished to exclude all members whose income exceeded £200 per annum, and the directors deemed unworkable and offensive a system of inquiry into members' incomes. As a result the medical officers of the association had been called out by the medical profession and temporary arrangements had been made for medical attendance. In order to meet the additional expense thus incurred the sum of 1*s.* a month would have to be levied on all members until a satisfactory arrangement could be made between the medical profession and the association. The statements in Mr. Bruck's pamphlet on "Sweating the Profession" were also called in question. It was stated that there were 71,218 members of benefit societies, who paid £64,000 to medical officers or something like 18*s.* per member a year, and about 7*s.* 6*d.* a visit. The medical officers of the Clerks' and Warehousemen's Association were paid 7*s.* 6*d.* a visit. In a letter to the daily press Mr. Bruck points out that the 18*s.* a year includes the supply of medicine, and the amount actually paid to the medical officers is only 11*s.*, and as the average medical attendance on each member is about thirteen a year the average rate paid by benefit societies for each medical attendance is only 10*d.*

Native Surgery in the South Seas.

In a recent communication the Rev. J. A. Crump, a missionary in New Britain, gives some interesting facts about the surgery practised by the native wizards or medicine men In the case of a simple fracture of the tibia the flesh over the seat of the injury is cut away with a sharp piece of obsidian and all pieces of splintered bone are removed. Then a piece of green taquete stalk, about four inches long and half an inch in diameter, peeled and scraped, is forced up the medullary canal of the upper fragment for two inches, the limb is then forcibly extended, and the lower fragments fitted on to the projecting taquete stalk and the ends brought together. A piece of the midrib of the cocoanut leaf is then fitted to the limb and tied on. The natives say no complications arise; the limb simply gets well. Trepanning is also largely performed in cases of compound fracture of the skull. A Y-incision is made with a sharp shell or piece of obsidian, the flap turned back, and the broken fragments cut and removed, leaving the brain exposed to the extent of half-a-crown. The flap is restored, a few bruised leaves spread over it, and tied on with strips of the banana stalk. The operation is almost always successful, and the Rev. Mr. Crump has obtained several skulls showing the operation when considerable repair by deposit of new bone had occurred.

The Children's Ministering Fresh-air League of Sydney.

The annual meeting of the Children's Ministering Fresh-air League was held at the Sydney Town Hall on Oct. 26th, and there was a large attendance of those interested in its work, including Lady Hampden. The report stated that since the inception of the league in 1892 by the late Rev. W. A. Leech upwards of 700 persons had been benefited by its means. In moving the adoption of the report Mr. P. Muskett observed that the infantile death-rate was abnormally high in the Australian cities, 168 in Sydney and 171 in Melbourne, and to diminish this appalling mortality he advocated an extension of the work of the league, a wider diffusion of the principles and methods of infant feeding, and the sale of absolutely pure milk.

The New South Wales Public Health Bill.

The new Public Health Bill (an outline of which has been given in a previous communication) has passed its second reading in the Legislative Assembly of New South Wales without much opposition. Almost the only objection taken to its provisions was that it placed too much administration in the hands of local municipal councils and would not be carried out by them on the ground of want of funds. Dr. Graham, M.L.A., advocated a central sanitary administration with drastic comprehensive powers.

Society of Health Officers in Victoria.

A new medical society has been started in Victoria, the Society of Health Officers, and held its first general meeting on Oct. 28th, when the following officers were elected:—President: Dr. James Jamieson, health officer of Melbourne. Vice-Presidents: Mr. C. N. Simons of Brighton and Dr. Nicholson of Benalla. Honorary Secretary and Treasurer: Dr. Daish of South Melbourne. Committee: Mr. Branson, Dr. M'Kee, Mr. McMullen, and Mr. Morton.

Death of Baron von Mueller.

By the death of Baron von Mueller Australia has lost one of her greatest scientists and the world in general a great botanist. Ferdinand von Mueller was born at Rostock in 1825 and was educated for the medical profession at Schleswig and Kiel. He early manifested a keen love of botany, and as soon as he had taken his M.D. degree he made an exhaustive study of the flora of Schleswig-Holstein, and became an active member of the German Association for the Advancement of Science. Being threatened with phthisis he sought a more genial climate, and went to South Australia in 1847. He made expeditions into the interior and prosecuted botanical researches, especially into the mountain flora. He then acted as botanist to the Gregory explorations in search of Dr. Leichardt, returning from them loaded with botanical specimens. He was then appointed director of the Melbourne Botanical Gardens, a position which he retained until 1873, when he became Government botanist, and devoted himself for the rest of his life entirely to scientific work, and produced a number of valuable works on botanical subjects which gained him a world-wide reputation. The best known of these are "Fragmenta Phytographiæ," "Flora Australiensis," and "Plants of Victoria." His "Select Extra-tropical Plants" is a unique work of its kind, cataloguing plants suitable for culture in the southern part of Australia, with indications of their uses. Altogether he published no less than forty volumes in English, German, and Latin. When the last Geographical Congress assembled in Vienna five special votes of thanks were awarded to men who had rendered exceptional services to science and Von Mueller was one of the five. In 1861 he was elected F.R.S. In 1891 he was created an hereditary baron by the King of Wurtemburg and a Commander of the Order of St. Iago of Portugal, and was afterwards made a Knight of the Order of SS. Michael and George by Her Majesty the Queen. He was a member of 150 learned societies in Europe and America. He was President of the second session of the Australasian Association for the Advancement of Science in 1890 and President of the Section of Pharmacology in the second session of the Inter-colonial Medical Congress of Australasia in 1889. He was the first to scientifically describe the eucalypti, of which he discovered thirty varieties, and proclaimed their hygienic and therapeutic properties, disseminating their seeds over the malarious districts of Europe. The Baron never married, and lived a very simple frugal life, spending the whole of his income on his scientific pursuits. His whole-souled devotion to his favourite study and his indefatigable industry and inexhaustible patience were almost unique, and he combined in a remarkable fashion the thoroughness of the German with the practical good sense of the English man of science, and while his contributions to knowledge were of the highest value as pure science they were also of great economic importance and helped to open up avenues of wealth to many of his fellow colonists.

Return of Dr. Fiaschi.

Dr. Fiaschi, who some months ago resigned his hospital appointments and gave up his practice to serve as a volunteer in the Italian army in Abyssinia, has returned to Sydney, and was welcomed at a banquet given to him by the medical profession and attended by a large and representative gathering.

Reforms Needed in the Victorian Hospitals for the Insane

The inspector-general of asylums for the insane in Victoria in his report for 1895 points out that the patients require separation into different classes, and that one of the metropolitan asylums should be more fully equipped for the

medical treatment of acute cases. He also draws attention to the want of an asylum for paying patients. At the last meeting of the Victorian Branch of the British Medical Association it was resolved: "That in the opinion of the branch the present arrangements for the treatment of the insane in Victoria require re-modelling, so that (1) facilities be afforded for the fuller medical treatment of curable cases, and (2) more suitable provision be made for pay-patients; and that a sub-committee be appointed to confer with the Inspector-General of Asylums and to take such steps as may be necessary to bring the matter under the notice of the Government."

New Women's Hospital in Melbourne.

Following the example of their sister practitioners in other parts of the world the medical women of Melbourne have started a hospital for women, the staff of which is to be composed entirely of women. It is called the Victoria Hospital and an out-patient department only is to be opened at present.

The Adelaide Hospital.

The board of management of the Adelaide Hospital, after inquiring into charges brought by Dr. Leith Napier against Professor Watson, the pathologist to the hospital and honorary consulting surgeon, recommended that Professor Watson should resign, and the Government has called upon him to do so. The board would not allow Professor Watson to call evidence.

Obituary.

RICHARD CALLAGHAN, M.R.C.S. ENG., L.R.C.P. EDIN., L.A.H. DUB.

IT is with sincere regret that the medical profession in Cork have heard of the death of Mr. Richard Callaghan. Some four years ago, owing to his failing health, he retired from active practice, but the end did not come until last Sunday. He held the diplomas of the Royal College of Surgeons of England and the Royal College of Physicians of Edinburgh, and his first appointment was as house surgeon to the Louth Infirmary. He was afterwards elected house physician of the Cork Fever Hospital and held in succession the positions of city dispensary medical officer and physician to the Cork Union Hospital. During his career there was an outbreak of virulent typhus fever in Cork and he himself contracted the disease in the discharge of his duties. Whilst dispensary medical officer he was called on to treat numerous cases of cholera, and during the epidemic of small-pox in the year 1872 he was untiring in his attention to the victims of that terrible disorder in the Union Hospital. He enjoyed a large general practice and was regarded as especially skilled in the treatment of fevers. He had a bright, cheery manner that brought light into the sick room, and had a host of friends inside and outside the profession. In spite of the terrible epidemics with which he had to grapple and the arduous duties he had to perform he attained the ripe age of seventy-one years. Kindly recollections of his conciliatory disposition and of his readiness to impart the fruits of his matured experience will be treasured by his colleagues, while his sympathetic attention to the waifs and strays of society will not readily be forgotten by them.

JAMES GORDON, M.A., M.B., B.CH. OXON., M.R.C.S. ENG., L.R.C.P. LOND.

ALL who knew James Gordon will learn with much regret of his death at the early age of thirty-five years. He was educated at Malvern School and New College, Oxford, where he graduated with high honours in natural science. Obtaining the University scholarship at Middlesex Hospital he completed his professional training there and then held office as house surgeon, first at the Royal Surrey Hospital, Guildford, and then at the Eye Infirmary, Oxford. Leaving Oxford, he was for a time in the P. and O. Company's service, until he accepted an appointment as surgeon to a tea-growing district in Sylhet, where he had a brother residing. Here after a while his health became broken, owing to repeated attacks of malaria and rheumatic fever, which culminated finally in destructive inflammation and subsequent ankylosis of the knee-joint. He was for four months an in-patient at the Calcutta Hospital, where his life was at one time despaired of; but he lived to return to England and to take up again after a while his old work as house surgeon to the Oxford Eye Infirmary. In July Bright's disease, which for some while previously had manifested itself, compelled him to give up his duties, though he kept his shoulder to the wheel to the last. Attacks of uræmic coma gradually supervened, and during one the end came peacefully. He died at his father's house, Hartbury Vicarage, Hants. To intellectual powers and professional ability of a high order were added in James Gordon a genial kindliness and cheery good nature which, shining through a somewhat brusque manner, endeared him to all who knew him. By hospital patients and the poor he was particularly beloved, for he spared himself no pains in their behalf, while his keen sense of humour and habit of looking at the bright side of things made him always welcome. Intuitively they recognised him as their friend. His disregard of self and the ordinary safeguards of health in the exercise of his duties contributed largely, if not entirely, to the breakdown of his constitution during his residence in India. Formerly he was a first-rate boxer and football player, but of late, when his stiff knee precluded his taking active exercise, he had devoted much of his leisure to literary pursuits. In this, as in some other traits, he resembled his uncle, Frank Buckland, the naturalist. The first of his books, "The Village and the Doctor," is now in the press.

JOHN MACE, M.B. LOND., L.S.A.

DR. JOHN MACE, a resident medical officer of the Leeds Public Dispensary, died last week from typhus fever contracted from one of the patients whom he was attending. Dr. Mace's all too short life was full of promise. As soon as he was qualified he was appointed one of the house surgeons at the Leeds General Infirmary, which post he held for twelve months. During this time his conduct won for him the respect and affection of his fellow residents and the patients under his care. On his resignation he was appointed resident officer in charge of the Ida Convalescent Home, where he well maintained the excellent reputation he had already gained for himself. During his brief career at the Dispensary the arduous nature of his duties told upon his general health and he was more than once laid up from the effects of overwork. All who knew and worked with him mourn the loss of one who was ever ready to give his best efforts to assist others and whose kindly, straightforward, courteous disposition will long remain unforgotten.

WILLIAM BRUNSKILL, L.S.A.

BY the death on Nov. 27th of Mr. William Brunskill, at Staindrop, Darlington, one of the oldest medical practitioners in England has been removed from amongst us. The deceased was born early in the present century, and received his diplomas from Mr. Abernethy, who, at the same time, presented him with his portrait, an honour that he only bestowed on the most deserving students. Mr. Brunskill was a student of St. Bartholomew's Hospital, and enjoyed a large practice in and around Staindrop for over sixty years. He was a most genial and hospitable gentleman, greatly beloved by all who knew him, and his death is mourned by a host of friends.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.—The deaths of the following eminent foreign medical men are announced:—Dr. Wenzel, Extraordinary Professor of Anatomy in Leipzig.—Dr. Batailley, known as Father Damien of the Barefooted Carmelites, missionary in Bagdad.—Dr. Carl Eisenlohr, in Madeira, where he had gone for his health. He was formerly one of the chief medical officers of the Hamburg hospitals. His special subject was neurology, upon which he lectured until he was obliged by laryngeal phthisis to give up his appointment and seek a more suitable

climate than that of Hamburg.—Dr. Ackermann, formerly professor of Pathological Anatomy in Halle, and previously professor in Rostock, at the age of seventy-one years. His successor in the chair, which he only vacated about a year ago, is Dr. Eberth.—Dr. Mahé, formerly delegate of the French Government on the Superior Sanitary Council, Constantinople.—Dr. Hans Schmid, surgeon to the Bethany Hospital, Stettin, where he contracted septicæmia while opening a foul abscess. He had been in the Servio-Bulgarian War, having charge there of a hospital in Belgrade. He had written a great deal on surgery, and only a short time before his death he had contributed an important article on the surgery of the kidneys and ureters to a well-known encyclopædia. He was only forty-three years of age.—Professor Hartelius, Director of the Central Institute for Curative Gymnastics in Stockholm.—Dr. Schneller, a well-known ophthalmic surgeon in Dantzig, where he had an important private hospital.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having passed the necessary examinations and having conformed to the bye-laws and regulations, have been admitted Members of the College, and are now entitled to register and practise Medicine, Surgery, and Midwifery:—

Allingham, Walter, L.R.C.P. Lond., St. George's Hospital.
Armitage, Richard, L.R.C.P. Lond., St. Bartholomew's Hospital.
Babington, Stanley Noel, L.R.C.P. Lond., St. Thomas's Hospital.
Bailey, Matthias, L.R.C.P. Lond., University College, Liverpool.
Baker, Gerald Rumsey, L.R.C.P. Lond., St. Bartholomew's Hospital.
Barton, Percy Frederick, L.R.C.P. Lond., Cambridge University and St. Thomas's Hospital.
Bean, Algernon Carter, L.R.C.P. Lond., University College, London.
Beesley, Robert William, L.R.C.P. Lond., Edinburgh University.
Bovey, Thomas William Widger, L.R.C.P. Lond., University College and Royal Infirmary, Bristol.
Box, Stanley Longhurst, L.R.C.P. Lond., St. Bartholomew's Hospital.
Boyan, John, L.R.C.P. Lond., St. Bartholomew's Hospital.
Branson, Clement Waites, L.R.C.P. Lond., Firth College, General Infirmary, and Royal Hospital, Sheffield.
Brown, George Walter, L.R.C.P. Lond., St. Thomas's Hospital.
Brown, Harry Mewburn, L.R.C.P. Lond., Owens College and Royal Infirmary, Manchester.
Brown, William Henry, L.R.C.P. Lond., Mason College, Queen's and General Hospitals, Birmingham.
Burges, Frederick Augustus L'Estrange, L.R.C.P. Lond., Mason College, Queen's and General Hospitals, Birmingham.
Burton, Edward Theodore, L.R.C.P. Lond., Mason College, Queen's and General Hospitals, Birmingham.
Clark, Sydney, L.R.C.P. Lond., King's College Hospital.
Clarke, James, L.R.C.P. Lond., St. Mary's Hospital.
Clarke, Walter Travers, L.R.C.P. Lond., Guy's Hospital.
Cleary, Augustine Patrick Douglas, L.R.C.P. Lond., University of Virginia, Bellevue Hospital and Medical College, and St. Mary's Hospital.
Clifford, Frank Charles Weeks, L.R.C.P. Lond., King's College Hospital.
Cock, George Herbert, L.R.C.P. Lond., Edinburgh University and St. Bartholomew's Hospital.
Collins, Victor Evelyn, L.R.C.P. Lond., Guy's Hospital.
Cooper, Edward Harold, L.R.C.P. Lond., London Hospital.
Cowin, Douglas Henry Fawcett, L.R.C.P. Lond., St. Bartholomew's Hospital.
Cudmore, Arthur Murray, L.R.C.P. Lond., Adelaide University.
Danaher, Edward Harry James, L.R.C.P. Lond., London Hospital.
Dando, Edwin Arthur, L.R.C.P. Lond., Mason College, Queen's and General Hospitals, Birmingham.
Davenport, Edward Charles, L.R.C.P. Lond., London Hospital.
Davey, Ernest Llewellyn, L.R.C.P. Lond., St. Bartholomew's Hospital.
Deck, Edward James, L.R.C.P. Lond., St. Bartholomew's Hospital.
Delbruck, Raoul Ernest, L.R.C.P. Lond., Cambridge University and Guy's Hospital.
De Vall, Alfred Ernest, L.R.C.P. Lond., Mason College, Queen's and General Hospitals, Birmingham.
De Villiérs, James Henry, L.R.C.P. Lond., St. Thomas's Hospital.
Dixon, Harold Evans, L.R.C.P. Lond., London Hospital.
Dodd, E. J. A., L.R.C.P. Lond., Yorkshire College and General Infirmary, Leeds.
Drake, D. J., L.R.C.P. Lond., St. Bartholomew's Hospital.
Eames, E. S. B., L.R.C.P. Lond., St. George's Hospital.
Earnshaw, A., L.R.C.P. Lond., Guy's Hospital.
Emanuel, J. G., L.R.C.P. Lond., Mason College, General and Queen's Hospitals, Birmingham.
Fayrer, F. D. S., L.R.C.P. Lond., Charing Cross Hospital.
Fenoulhet, J. H., L.R.C.P. Lond., Cambridge University and St. Mary's Hospital.
Fernie, J. F., L.R.C.P. Lond., St. Bartholomew's Hospital.
Finch, A. H., L.R.C.P. Lond., Guy's Hospital.
Gardiner, G. E., L.R.C.P. Lond., St. Bartholomew's Hospital.
Gardiner, J. N., L.R.C.P. Lond., Cambridge University and Guy's Hospital.
Goodridge, W. L. T., L.R.C.P. Lond., Guy's Hospital and University College, London.
Gordon, C. F., L.R.C.P. Lond., St. Bartholomew's Hospital.
Gordon, L. P., L.R.C.P. Lond., Charing Cross Hospital.
Graham, V., L.R.C.P. Lond., St. Thomas's Hospital.
Gray, W. H., L.R.C.P. Lond., University College, London.
Gregory, E. T., L.S.A. Lond., Charing Cross Hospital.
Grimes, L. A., L.R.C.P. Lond., St. George's Hospital.
Hair, A., L.R.C.P. Lond., University College, London.
Hall, H. A., L.R.C.P. Lond., St. Mary's Hospital.
Hall, J. A., L.R.C.P. Lond., Mason College, General and Queen's Hospitals, Birmingham.
Hancock, W. I., L.R.C.P. Lond., Guy's Hospital.
Hardy, F. H., L.R.C.P. Lond., Guy's Hospital.
Harrison, H., L.R.C.P. Lond., London Hospital.
Harrison, L. K., L.R.C.P. Lond., Cambridge University and St. Bartholomew's Hospital.
Heath, J. G., L.R.C.P. Lond., St. Mary's Hospital.
Henson, W. W., L.R.C.P. Lond., Guy's Hospital.
Hicks, H. T., L.R.C.P. Lond., Guy's Hospital.
Hills, W. E., L.R.C.P. Lond., Guy's Hospital.
Hodges, G. W. C., L.R.C.P. Lond., St. George's Hospital.
Hewitt, W. A., L.R.C.P. Lond., Cambridge and St. George's Hospital.
Hynes, E. J., L.R.C.P. Lond., London Hospital.
Jackson, H. C., L.R.C.P. Lond., University College, London.
Jelly, G. A., L.R.C.P. Lond., Owen's College and Royal Infirmary, Manchester.
Jephcott, C., L.R.C.P. Lond., Cambridge University and Guy's Hospital.
Jerman, A. E., L.R.C.P. Lond., Westminster Hospital.
Jones, C. E., L.R.C.P. Lond., St. Thomas's Hospital.
Jones, R. G., L.R.C.P. Lond., London Hospital.
Jones, W. P., L.R.C.P. Lond., St. George's Hospital.
Keith, W. D., L.R.C.P. Lond., University College, University and General Hospitals, Toronto.
Kelly, Bruce Curtis, L.R.C.P. Lond., Edinburgh University.
Kemp, David Claude, L.R.C.P. Lond., University College, London.
Keown, David Boyd, L.R.C.P Lond., St. Bartholomew's Hospital.
King, Frank Raymond, L.R.C.P. Lond., Cambridge University and Westminster Hospital.
Levi, Joshua, L.R.C.P. Lond., Yorkshire College and General Infirmary, Leeds.
Levick, George Kenny, L.R.C.P. Lond., Guy's Hospital.
Little, Arthur Edwin, L.R.C.P. Lond., Yorkshire College and General Infirmary, Leeds.
Lumb, Edward John, L.R.C.P. Lond., Yorkshire College and General Infirmary, Leeds.
McAdam, Kenneth, L.R.C.P. Lond., University of New Zealand and University of Otago, Dunedin, New Zealand.
MacGregor, Arthur Robert, L.R.C.P. Lond., King's College Hospital.
MacWatters, John Courtnay, L.R.C.P. Lond., University College and Royal Infirmary, Bristol.
Madden, Frank Cole, L.R.C.P. Lond., University of Melbourne and St. Mary's Hospital.
Maitland, Charles Robert, L.R.C.P. Lond., Cambridge University and St. Bartholomew's Hospital.
Marks, Leonard Freeman, L.R.C.P. Lond., St. Bartholomew's Hospital.
Maxwell, James Laidlaw, L.R.C.P. Lond., St. Bartholomew's Hospital.
Moffitt, Charles Gordon, L.R.C.P. Lond., University College, London.
Molesworth, Theodore Henderson, L.R.C.P. Lond., Cambridge University and St. Bartholomew's Hospital.
Mould, Philip George, L.R.C.P. Lond., St. Mary's Hospital.
Murray, Cyril Scott, L.R.C.P. Lond., St. Mary's Hospital.
Naish, Albert Edward, L.R.C.P. Lond., Cambridge University and St. Bartholomew's Hospital.
Nesham, Robert Anderson, L.R.C.P. Lond., Cambridge University and St. Bartholomew's Hospital.
Nichols, Robert Edward, L.R.C.P. Lond., St. Mary's Hospital.
Nicol, Alexander Campbell, L.R.C.P. Lond., Yorkshire College and General Infirmary, Leeds.
Nimmo, Frank Hutton, L.R.C.P. Lond., St. Bartholomew's Hospital.
Nixon, Arthur Percival, L.R.C.P. Lond., University College, Liverpool.
Parfitt, Charles Daniel, L.R.C.P. Lond., Trinity College and General Hospital, Toronto.
Pearce, Francis Henry, L.R.C.P. Lond., Cambridge University and St. Thomas's Hospital.

Pell, William, L.R.C.P. Lond., St. Thomas's Hospital.
Pendlebury, Herbert Stringfellow, L.R.C.P. Lond., Cambridge University and St. George's Hospital.
Pownall, Graham Stainmetz, L.R.C.P. Lond., St. Bartholomew's Hospital.
Price, Francis Edward, L.R.C.P. Lond., St. Bartholomew's Hospital.
Roache, William Henry, L.R.C.P. Lond., St. Bartholomew's Hospital.
Rozelaar, Abraham Levi, L.R.C.P. Lond., Charing Cross Hospital.
Sargent, Alfred George, L.R.C.P. Lond., St. Mary's Hospital.
Scatchard, James Percival, L.R.C.P. Lond., St. Thomas's Hospital.
Seal, Francis Montgomery, L.R.C.P. Lond., University College, London.
Sear, John Taylor, L.R.C.P. Lond., St. Thomas's Hospital.
Seccombe, Charles William, L.R.C.P. Lond., St. Mary's Hospital.
Seligmann, Charles Gabriel, L.R.C.P. Lond., St. Thomas's Hospital.
Sibson, Arthur Bertram, L.R.C.P. Lond., Middlesex Hospital, and Owens College and Royal Infirmary, Manchester.
Simmons, Stewart Septimus, L.R.C.P. Lond., University College, London.
Smith, Daniel Lloyd, L.R.C.P. Lond., Guy's Hospital.
Smith, William, L.R.C.P. Lond., University College and Royal Infirmary, Bristol, and St. Bartholomew's Hospital.
Smithson, Oliver Cromwell, L.R.C.P. Lond., Yorkshire College and General Infirmary, Leeds.
Thomas, Rhys Tudor, L.R.C.P. Lond., University College, London.
Thomson, Arnold James, L.R.C.P. Lond., Mason College, Queen's and General Hospitals, Birmingham, and University College Hospital.
Todd, Arthur Rochefort, L.R.C.P. Lond., University College, London.
Todd, David Bansall, L.R.C.P. Lond., Guy's Hospital.
Tuke, Arthur William, L.R.C.P. Lond., St. Thomas's Hospital.
Turner, Arthur Scott, L.R.C.P. Lond., Guy's Hospital.
Walker, William Watson, L.R.C.P. Lond., St. Mary's Hospital.
Wareham, Sidney James, L.R.C.P. Lond., Charing Cross Hospital.
Way, John Henry Frederic, L.R.C.P. Lond., St. Thomas's Hospital.
Weeks, Harold, L.R.C.P. Lond., St. Bartholomew's Hospital.
Whittington, Richard, L.R.C.P. Lond., Oxford University and St. Thomas's Hospital.
Williamson, Herbert, L.R.C.P. Lond., Cambridge University and St. Bartholomew's Hospital.
Wood, Horatio Charles William, L.R.C.P. Lond., Mason College, Queen's and General Hospitals, Birmingham.
Wood, Walter Robert, L.R.C.P. Lond., Guy's Hospital.
Woodford, Edwin Vivian Russell, L.R.C.P. Lond., University College and Royal Infirmary, Bristol.
Woodhouse, William Barnabus, L.R.C.P. Lond., Middlesex Hospital.
Young, Henry William Pennyfather, L.R.C.P. Lond., Cambridge University and St. Bartholomew's Hospital.

CAMBRIDGE UNIVERSITY.—The following medical and surgical degrees were conferred on Nov. 26th:—M.D., A. Walker, M.A. (Pembroke), and A. F. Blagdon-Richards, M.A. (Downing). M.B. and B.C.: P. C. Bardsley (Gonville and Caius) and E. S. Verdon (Jesus). B.C.: A. G. Penny (St. Peter's). The Walsingham gold medal has been awarded to W. McDougall, B.A., of St. John's College and St. Thomas's Hospital, for original researches in physiology. Dr. L. E. Shore, of St. John's College, has been appointed a University Lecturer and Mr. A. Eichholz, of Emmanuel College, an additional Demonstrator in Physiology.

FOREIGN UNIVERSITY INTELLIGENCE. — *Bahia:* Dr. Julians Moreira has been appointed Clinical Professor of Nervous Diseases.—*Bucharest:* Dr. Buiciiu has been appointed Clinical Professor of Medicine.—*Christiania:* Assistant Professor S. Laache has been appointed Professor of Internal Medicine.—*Cracow:* Dr. A. Zarewicz, *privat-docent* of Syphiligraphy, has received the title of Professor.—*Naples:* Dr. Chirone of Padua has been appointed Professor of Materia Medica and Experimental Pharmacology.—*Prague* (German University): Dr. Zaufal has been promoted to be Ordinary Professor of Otology.—*Saragossa:* Dr. Rafael Mollá y Rodrigo of Grenada has been appointed Professor of Clinical Surgery.—*Rostock:* A new Clinic for Mental Diseases has been opened under the direction of Professor Schuchardt.

DIPHTHERIA IN LONDON.—The deaths registered from diphtheria in the county of London last week numbered 60, and were 10 in excess of the corrected decennial average for the forty-ninth week of the period 1886-95. Not only so, but they exceeded the total of each of the two weeks preceding, which was 59 in the earlier and 48 in the latter of the two weeks. The usual, disproportionately large number of deaths in very young persons was witnessed again, and the deaths were also once more widely distributed throughout London, there having been 5 in persons belonging to Islington as well as to Hackney; 4 in persons belonging to Camberwell; while Limehouse, Poplar, Bermondsey, Lambeth, and Greenwich sanitary areas were each credited with 3 deaths last week. On Saturday last there were 805 persons ill of the disease in London hospitals, the admissions to which in the week included 115 cases of diphtheria. In Greater London the total registered deaths from the malady last week numbered 73, there having been 13 in outer London, of which 6 were of persons residing in the West Ham registration district.

KINGSTON-ON-THAMES AND DISTRICT PHOTOGRAPHIC SOCIETY.—On Dec. 2nd, at the invitation of the Kingston Photographic Society, a large number of medical men in the Thames Valley district witnessed a demonstration of the x rays by Mr. Mouland. A number of surgical cases were radiographed and viewed through the screen.

FOOTBALL CASUALTIES.—At Henley, on the 21st ult., in a match between the home team and the Clerkenwell Club, the Henley centre forward sustained a compound fracture of the right leg.—At Sunderland, on the 15th ult., during a match on the Town Moor, a youth received a kick on the knee and was taken to the Infirmary, where he died.

GLASGOW MEDICO-CHIRURGICAL SOCIETY.—A meeting of this society was held on Nov. 27th, Dr. E. L. Reid, President, being in the chair.—Dr. Middleton showed as a fresh specimen the parts from a case of Abdominal Aneurysm. The patient was a man aged twenty-nine years who attributed his illness to a strain received in May, 1895. When seen in June, 1896, he had epigastric pulsation which disappeared on rest, with severe pain. Eventually pulsation appeared in the region of the lower ribs to the left of the middle line with a gradually increasing tumour non-pulsatile in the left abdomen. The diagnosis lay between an aneurysm and a rapidly growing tumour. Post mortem a small smooth-walled aneurysmal sac was found projecting from the aorta between the pillars of the diaphragm, and outside this was a large false sac filled with partially organised clot and fluid blood. The vertebræ were extensively eroded. Some two years previously the patient had a collection of fluid in his left pleural sac which on aspiration was found to be blood-stained.—Dr. Middleton showed a man aged twenty-nine years with Acromegaly. The chief evidences of the disease were in the hands and feet; the face was but slightly affected, and there was no thickening of the neck or enlargement of the tongue. The visual field was not appreciably contracted.—Dr. Edgar read notes of a case of Hypergrophic Pulmonary Osteo-Arthropathy and showed photonraphs and skiagrams of the limbs.—Dr. A. Napier read dotes of six cases of Chorea in young women with two eaths.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

ANNINGSON, B., M.D. Cantab., M.R.C.S., has been re-appointed Medical Officer by the Chesterton Urban District Council.

BERNARD, C. S., L.A.H. Dubl., L.R.C.S. Irel., has been re-appointed Medical Officer of Health by the Skegness Urban District Council.

BOASE, RICHARD D., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer of Health for the Borough of Penzance.

BROWN, JOHN, M.D., D.P.H. Vict., has been re-appointed Medical Officer of Health for the Borough of Bacup, and Physician to the Southall Fever Hospital.

CAMERON, ALEX., M.D., C.M. Glasg., has been re-appointed Medical Officer of Health for the Caistor Rural Sanitary District.

CLIVE, E., J.P., M.D. Cantab., F.R.C.S., L.R.C.P. Lond., has been appointed an Honorary Surgeon to the Warneford Hospital, Leamington.

CRAWFORD, J. H., M.B., C.M. Edin., D.S.Sc. Vict., has been appointed Assistant Medical Officer to the Bradford Infirmary, vice J. Kerr.

DALTON, GERALD, L.S.A. Lond., has been appointed Surgeon to the cable ship *Electra* of the Eastern Telegraph Service.

DICKSON, J. D., M.D., M.Ch. Irel., L.R.C.S., has been re-appointed Medical Officer of Health by the Wycombe Rural District Council.

EAST, CHARLES H., M.D., B.S. Durh., M.R.C.S., has been appointed Honorary Surgeon to the Malvern Rural Hospital.

EASTON, J., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed Medical Officer for the St. John's Sanitary District of the Weardale Union.

FITZGERALD, G. H., M.D., M.Ch. Irel., has been re-appointed Medical Officer of Health by the Castle Ward Union Rural Sanitary Authority.

FORBES, WM. J., M.B., B.S. Irel., has been appointed Medical Officer for the Scriven Sanitary District of the Knaresborough Union.

FRASER, LACHLAN, G., B.S., M.B., has been appointed Honorary Surgeon to the Tynemouth Infirmary.

FRASER, P., M.D. Glasg., L.R.C.S. Edin., has been appointed Medical Officer of Health by the Colwyn Bay and Colwyn Urban District Council.

FREER, J. H., L.R.C.P. Lond., M.R.C.S., has been re-appointed Medical Officer of Health by the Rugeley District Council.

FULTON, G. C. H., M.B., C.M. Glasg., has been re-appointed Medical Officer for the Fourth Sanitary District of the Middlesborough Union.

HAINS, L. J. C., L.R.C.P. Edin., L.R.C.S., has been appointed a District Medical Officer for the Totnes Union.

HARVEY, F., M.R.C.S., has been re-appointed Medical Officer of Health for the Padstow District.

HIGHET, H., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed Medical Officer for the Burgh of Troon.

JACOB, E. L., M.R.C.S., has been appointed Medical Officer by the Walton Urban District Council.

JARDINE, ROBERT, M.D. Edin., M.R.C.S. Eng., F.F.P. & S. Glasg., has been appointed Physician to the Glasgow Maternity Hospital.

MACNAUGHTON, A., M.D., F.F.P.S. Glasg., has been appointed Parochial Medical Officer for Kilchrennan and Dalavich.

MAY, GEO. E., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer to the Workhouse and Vaccination Officer for the No. 3 Sanitary District of the Ware Union.

NEWTON, H. W., L.R.C.P. Lond., M.R.C.S., D.P.H., has been appointed Medical Officer for the Chelmsford Infirmary and Dispensary, vice E. H. Carter.

NOLANS, F., L.R.C.P., L.R.C.S. Irel., has been appointed Medical Officer for the Gorey Dispensary, County Wexford.

POTTER, C. E., M.B., C.M. Edin., has been appointed Medical Officer for the Ashbourne District.

RAYMOND, J. K., M.B., C.M., has been appointed Resident Medical Officer to the York Dispensary.

STEWART, JAMES, L.R.C.P., L.R.C.S. Edin., has been appointed Medical Officer by the Parish and Town Councils of Inverary.

SUMPTER, W. J. ERNELY, L.R.C.P. Lond., M.R.C.S. Eng., has been appointed Medical Officer of the Sherringham District of the Erpingham Union.

THOMPSON, HENRY E., M.B. Lond., L.R.C.P. Lond., M.R.C.S. Eng., has been appointed Junior House Surgeon of the Blackburn and East Lancashire Infirmary.

THORP, C. W., L.R.C.P., F.R.C.S. Irel., has been re-appointed Medical Officer of Health for the Todmorden Urban District.

TROTTER, R. H., M.B., Ch.B. Vict., has been appointed Medical Officer of Health by the Holme, Holmfirth, Houley, and Netherthong Urban District Councils.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

BOROUGH OF BRADFORD FEVER HOSPITAL.—Resident Medical Superintendent, unmarried. Salary £200 per annum, with board and residence. Applications to the Town Clerk, Town Clerk's Offices, Bradford.

BURY DISPENSARY HOSPITAL, Lancs.—Junior House Surgeon. Salary £60 per annum, with board, residence, and attendance.

DERBYSHIRE ROYAL INFIRMARY, Derby.—Assistant House Surgeon for six months. An honorarium of £10 will be given conditionally, with board, residence, and washing.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark, S.E.—Surgeon to Out-patients.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark, S.E.—Four Qualified Clinical Assistants and Eight Unqualified Clinical Clerks in the Out-patient Department.

GENERAL HOSPITAL, Nottingham.—Assistant House Physician for six months. Board, lodging, and washing in the hospital provided.

HOSPITAL FOR WOMEN, Soho-square, London, W.—Assistant House Physician (non-resident) for three months.

MANCHESTER ROYAL INFIRMARY.—Resident Medical Officer for the Convalescent Hospital at Cheadle (unmarried) for twelve months. Salary £150 per annum, with board and residence.

MILLER HOSPITAL AND ROYAL KENT DISPENSARY, Greenwich-road, S.E.—Resident Medical Officer for six months. Salary at the rate of £30 per annum, with board, attendance, and washing.

NEW HOSPITAL FOR WOMEN, 144, Euston-road, London.—Three qualified medical women as Assistant Physicians in the Out-patient Department for two years. Also a qualified medical woman as Clinical Assistant in the Out-patient Department for one year.

NORTH LONDON HOSPITAL FOR CONSUMPTION, Hampstead, N.W.—Resident Medical Officer for one year. Honorarium £40 per annum, with board, lodging, &c., in the hospital.

ROYAL COLLEGE OF PHYSICIANS, London.—Milroy Lecturer for 1898.

ROYAL HANTS COUNTY HOSPITAL, Winchester.—Honorary Physician and Honorary Surgeon.

ROYAL HANTS COUNTY HOSPITAL, Winchester.—Assistant House Surgeon for six months. Remuneration £10, with board and lodging.

ROYAL HOSPITAL FOR CHILDREN AND WOMEN, Waterloo Bridge-road, London, S.E.—Anæsthetist and Registrar. Salary £30 a year.

STROUD GENERAL HOSPITAL.—House Surgeon. Salary £80 per annum, with board, lodging, and washing.

UNIVERSITY OF GLASGOW.—Four Assistant Examiners for Degrees in Medicine. The annual fee in two cases is £30 and in the others £45, the term of office being till Dec. 31st, 1900, in each case.

WEST RIDING ASYLUM, Wadsley, near Sheffield.—Pathologist, who will also be required to act as Fifth Assistant Medical Officer. Salary £100 per annum, rising £10 a year to £150, with board, &c.

Births, Marriages, and Deaths.

BIRTHS.

BEST.—On Dec. 3rd, at Cambridge-terrace, Dover, the wife of W. J. Duncan Best, M.R.C.S. Eng., L.S.A. Lond., of a son.

FOOT.—On Dec. 6th, at Church House, Pulborough, Sussex, the wife of Ernest Foot, M.R.C.S., of a son.

FOURAKER.—On Nov. 27th, at Central-hill, Upper Norwood, S.E., the wife of F. Fouraker, L.D.S. R.C.S. Eng., of a daughter.

KEEGAN.—On Dec. 2nd, at Cresswell-gardens, South Kensington, the wife of Brigade-Surgeon-Lieutenant-Colonel Keegan (Retired), of a son.

KIDD.—On Dec. 2nd, the wife of Walter Kidd, M.D., of Montpelier-row, Blackheath, of a son.

MEYER.—On Dec. 7th, at Amwell-place, Hurstpierpoint, Sussex, the wife of William Robert Meyer, Surgeon, of a son.

PENROSE.—On Dec. 3rd, at Woodhays, Wimbledon, the wife of Francis George Penrose, M.D., F.R.C.P., of a daughter.

WOOD.—On Dec. 8th, at Elm House, Ipswich, the wife of Arthur T. Wood, M.R.C.S. Eng., of a son.

MARRIAGES.

COLLINS—WHEELER.—On Nov. 28th, at St. Peter's Church, Bayswater, by the Rev. H. G. Rosedale, George William Collins, M.R.C.S. Eng., L.R.C.P. Lond., of The Mall, Wanstead, Essex, to Maud Evelyn, second daughter of Walter W. Wheeler, Esq., of Ladbroke-road, W.

COWAN—PHILLIPS.—On Oct. 21st, at Concordia, Namaqualand, South Africa, Michael Waistell Wilmshurst Cowan, M.B., C.M., eldest son of Michael Waistell Cowan, M.D., R.N., Inspector-General of Hospitals and Fleets, Leigh Lodge, near Worcester, to Myra, daughter of T. Phillips, Concordia.

SMYTH—CRAWFORD.—On Nov. 13th, at Bangalore, India, Surgeon-Major John Smyth, M.D., I.M.S., Madras, and Kilnaclay, County Monaghan, to Mary Josephine (May), younger daughter of the late Sir Thomas Crawford, M.D., K.C.B., formerly Director-General, Army Medical Department.

STREATFEILD—WILSON.—On Dec. 5th, at Christ Church, Lancaster-gate, Thomas Streatfeild, M.B., son of the late Mr. John Fremlyn Streatfeild, F.R.C.S., of Upper Brook-street, to Florence Ethel, youngest daughter of the late Rev. Chas. Maryon Wilson, Rector of White Roding, Essex.

DEATHS.

BARTON.—On Nov. 25th, at Wadsley Asylum, near Sheffield, of pneumonia, James Robert Barton, Senior Assistant Medical Officer, son of James Barton, Esq., Farndreg, Dundalk, aged 43.

COOPER.—On Dec. 2nd, at his residence, South College, Elgin, James Cooper, M.D., in his 85th year.

HOCHEE.—On Dec. 7th, James Hochee, M.R.C.S., of Park-gate, East Finchley.

ROBSON-SCOTT.—On Nov. 27th, at Calcutta, Charles George Robson-Scott, Surgeon-Captain I.M.S., third son of the late Thomas Robson-Scott, of Newton, Roxburghshire, N.B. (By cable.)

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, Dec. 10th, 1896.

Date.	Barometer reduced to Sea Level and 32° F	Direction of Wind.	Dry Bulb	Wet Bulb.	Solar Radia in Vacuo	Maximum Temp. Shade	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
Nov. 4	29·28	S.W.	47	46	52	49	45	0·56	Overcast
,, 5	29·92	W.	45	44	59	48	44	0·15	Cloudy
,, 6	29·75	E.	47	45	58	49	42	0·02	Raining
,, 7	29·10	W.	45	44	52	49	41	...	Overcast
Dec. 8	29·75	S.W.	39	38	55	48	36	0·01	Foggy
,, 9	29·54	S.W.	48	47	54	50	39	0·07	Raining
,, 10	29·90	S.W.	45	41	52	49	41	...	Foggy

Medical Diary for the ensuing Week.

OPERATIONS.

METROPOLITAN HOSPITALS.

MONDAY (14th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (2 P.M., Ophthalmic 1.15 P.M.), St. Mary's (2.30 P.M.), Middlesex (1.30 P.M.), St. Mark's (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynæcological, by Physicians, 2 P.M.), Soho-square (2 P.M.), Royal Orthopædic (2 P.M.), City Orthopædic (4 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.).

TUESDAY (15th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), Guy's (1.30 P.M.), St. Thomas's (3.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (2 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.).

WEDNESDAY (16th).—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), King's College (2 P.M.), St. Mary's (2 P.M.), National Orthopædic (10 A.M.), St. Peter's (2 P.M.), Samaritan (2.30 P.M.), Gt. Ormond-street (9.30 A.M.), Gt. Northern Central (2.30 P.M.).

THURSDAY (17th).—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (1.30 P.M.), St. Mary's (2.30 P.M.), Soho-square (2 P.M.), North-West London (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (Gynæcological, 2.30 P.M.)

FRIDAY (18th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), St. Mary's (2 P.M., Ophthalmic 10 A.M.), Cancer (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.).

SATURDAY (19th).—Royal Free (9 A.M. and 2 P.M.), Middlesex (1.30 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), University College (9.15 A.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), St. Mary's (10 P.M.), Cancer (2 P.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

SOCIETIES.

MONDAY (14th).—MEDICAL SOCIETY OF LONDON.—8.30 P.M. Mr. Mayo Robson: Appendicitis.

TUESDAY (15th).—PATHOLOGICAL SOCIETY OF LONDON.—8.30 P.M. Papers:—Mr. H. Snow: Colloid Carcinoma of the Breast.—Dr. A. A. Kanthack and Mr. T. S. Pigg: Carcinoma of Testis.—Mr. C. Beadles: Gummatous Enlargement of the Pituitary Body.—Dr. Voelcker: (1) Carcinoma in a Waxy Liver; (2) A Ruptured Heart. Card Specimens:—Dr. J. H. Sequeira: Pericarditis in a Child aged Fifteen Months.—Mr. C. Beadles: (1) Malformed Liver; (2) Primary Cancer of the Liver with large Growth in Chest Wall.—Dr. H. M. Fletcher: Ulceration of Œsophagus in Contracted White Kidney.

THURSDAY (17th).—HARVEIAN SOCIETY (Stafford Rooms, Titchborne-street, Edgware-road, W.).—8.30 P.M. Dr. W. F. Cleveland: On Induction, and its Association with the History and Progress of Medicine (Harveian Lecture).

SOCIETY OF ANÆSTHETISTS (20, Hanover-square, W.).—8.30 P.M. Casual Communication and to Consider the Advisability of Commemorating next year the Fiftieth Anniversary of the Introduction of Chloroform.

FRIDAY (18th).—EPIDEMIOLOGICAL SOCIETY OF LONDON (11, Chandos-st., Cavendish-sq.).—8 P.M. Dr. J. Cantlie: The Plague at Hong Kong.

LECTURES, ADDRESSES, DEMONSTRATIONS, &c.

TUESDAY (15th).—THE HOSPITAL FOR SICK CHILDREN (Gt. Ormond-st. W.C.).—2.30 P.M. Dr. Lees: Rheumatism and Heart Disease.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC (Bloomsbury).—3.30 P.M. Mr. Victor Horsley: Lecture.

WEDNESDAY (16th).—HOSPITAL FOR CONSUMPTION, &c. (Brompton).—4 P.M. Dr. Acland: Cases illustrating some Difficulties in the Diagnosis of Pulmonary Disease.

LONDON SKIN HOSPITAL (40, Fitzroy-square, W.).—4 P.M. Dr. Shuldham: Keratodermia.

WEST LONDON POST-GRADUATE COURSE (West London Hospital, W.).—5 P.M. Dr. Robinson: Painful Menstruation.

Notes, Short Comments, and Answers to Correspondents.

EDITORIAL NOTICE.

IT is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Lectures, original articles, and reports should be written on one side of the paper only.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *should be addressed "To the Manager."*

We cannot undertake to return MSS. not used.

SUICIDE IN JAPAN.

M. SAITO KOKUFU, in a striking statistical paper, tells us that at the end of the last decade suicides in Japan reached their maximum—viz., in the years 1885 and 1886. This recrudescence corresponded with a notable rise in the cost of living. In fact, the number of suicides year by year increases or diminishes in sympathy with the rice crop. The age most favourable to suicide is twenty for females and twenty-five for men. After twenty-five women seldom make away with themselves, while it is not till they have passed their fortieth year that men may be regarded as beyond the dangerous period. From these facts M. Kokufu draws the inference that the women, once married, accept life as it presents itself, and that the men remain a long time at the mercy of ambition and avarice. Poison and firearms are not the means by which suicide is mostly effected, being found to be uncertain and "inconvenient." But every Japanese of either sex carries a long waist belt, which enables him or her on the slightest provocation to put an end to life by strangulation. It is in the great centres of population—not in the rural districts—that most suicides occur. About half the tragedies are due to cerebral derangement, a fourth to reverses of fortune, an eighth to bodily suffering, and the residue to privation, remorse, thwarted love, or domestic quarrels.

H. L.—We do not think our correspondent need be alarmed in regard to the effect produced by a night-light in increasing the nervousness of a child four years of age who has always been accustomed to it. The light can easily be prevented from falling on the eyes directly, and if the child is really nervous and wakes frequently in the night we should have thought a feeble light would be reassuring and prevent the fear that complete darkness occasions in many children.

A DENTIST'S HANDBILL.

WE have received the handbill of a dentist whose name we cannot find in the Dentists' Register for 1896. Part of this bill consists of the following testimonial:—

"From Dr. LAMBART, L.R.C.P.E., L.R.C.S.E., &c., &c.
"The Surgery, 4, Whimple Street, Plymouth.
"To ——— "September 23rd, 1896.
"I have great pleasure in testifying to the satisfactory manner in which you have executed work both for myself and those patients I sent to you. I have no hesitation in saying that your work is characterised by excellence, neatness, and despatch."

Mr. Lambart is probably not aware of the use which is being made of his name. We hope that the matter having been brought to his notice will receive his immediate attention.

THE USE OF OXYGEN AND CHLOROFORM IN SURGICAL ANÆSTHESIA.

MR. NICHOLSON writes to us to say that we have done him scant justice in stating that his method of using the mixture of oxygen with chloroform is not a novelty. We have already published Mr. Nicholson's views (THE LANCET, May 16th, 1896, p. 1336), so we need not repeat them here. He pleads ignorance of the work of Neudörfer and the others to whom we referred, and alleges that now he has looked into it he finds that his method differs from theirs inasmuch as he has devised an apparatus which gives better results. We were chiefly concerned with the fact that Mr. Nicholson had allowed himself to be interviewed by a reporter of a local newspaper. None can claim, as Mr. Nicholson was there said to have done, the "beneficent invention" of giving oxygen with chloroform. All persons who know the literature of the subject of anæsthesia are fully aware that for years before Mr. Nicholson claims to have used these two substances together their employment by many different methods had been tried. Mr. Nicholson's confessed ignorance can be no excuse for his tacitly accepting the adulation which has been offered him as a "beneficent inventor."

Ambulance.—It is customary for the lecturers to the St. John Ambulance Society to give their services free. The society never pays fees, we believe, and, indeed, it has no fund from which to do so.

Physician and Surgeon has omitted to give his name and address.

MULTIPLE CERTIFICATES AND THE NOTIFICATION ACT.

To the Editors of THE LANCET.

SIRS,—As parish medical officer I notified a case of scarlet fever to the medical officer of health, and my certificate has been returned on the ground that the case had already been notified by another practitioner. I should be glad if you would inform me if the medical officer of health is or is not bound to accept more than one certificate, as I am under the impression he is. I am, Sirs, yours truly,

Dec. 7th, 1896. NOTIFICATION.

*** The words of the Act are: "Every practitioner attending on, or called in to visit, the patient shall forthwith, on becoming aware that the patient is suffering from an infectious disease to which this Act applies, send to the medical officer of health a certificate." Our correspondent will find fuller information in the pamphlet published by us entitled "Difficulties under the Infectious Diseases Notification Act," and to be procured from this office. Price 6d.—ED. L.

R. H.—We understand that the General Medical Council do not at present object to unqualified assistants being employed by practitioners when resident in or near their employer's houses, but the Council will not allow unqualified persons to conduct branch practices or dispensaries at a distance from the principal's house and not under his immediate supervision.

"GREAT WITS TO MADNESS OFTEN ARE ALLIED."

A propos to the recent death of Trécul, the eminent botanist, who led the life of a veritable recluse, M. Jules Claretie tells us that until lately a learned inmate of a lunatic asylum was in the habit of sending to the Académie des Sciences every year with much greater regularity than most of the sane contributors a mathematical disquisition that invariably exhibited talent of a high order. We all know the effects of fractions on a mind already weakened by a course of multiplication and division, aggravated by the rule of three, so there is nothing to astonish in M. Claretie's modern instance; but in a book entitled "Nord et Midi" M. B. Loudun goes one better, if it be permissible to employ the expressive Americanism, inasmuch as he avers (page 248) that a short time since ("and for all he knows to the contrary up to the present moment") a certain active member of the same distinguished body, not a mathematician, was a victim to the delirium of persecution, and believed in an universal conspiracy to poison him. As, however, a writer in *Le Progrès Médical* over the well-known initials "M.B." justly observes, it would be well if M. Loudun were to give the authority on whom he relies for his diagnosis, because, as a matter of fact, the details he supplied are in no wise pathognomonic.

G. E. H.—The matter is essentially one upon which the medical attendant should be consulted.

MEDICAL CERTIFICATES FOR SCHOOL BOARDS.

Mr. W. T. Sheppard.—So far as we know the question has never been tested. The whole matter is anomalous. The duty of getting children to school devolves upon the School Board by law. But no Board has any right to demand a certificate. It only has a right to summon the parents or to ask them for valid reasons as to the absence of the child. If parents do not send their children to school they are summoned. If they provide a satisfactory excuse—medical certificate or otherwise—nothing further happens; if not, they are fined. So the onus of providing an excuse apparently rests upon the parents.

THE NEW RAPE OF THE LOCK.

THE *Pall Mall Gazette* of Dec. 9th says:—

"A painful conflict has arisen at Budapest over a question which concerns the lady doctor and the nurse. There have hitherto been five lady students of medicine in the Hungarian University, and the question now arises whether this number will ever increase. One of these students is a lady possessing a particularly fine head of hair, and on such the leading Professor of Surgery looks with alien eyes. He has refused to admit her to his clinic till these locks have fallen, and candidates must in future make their choice between science and the scissors. And why? The Professor has vouchsafed to give his reason. It makes one wonder whether he is a family-man and what conception he can have formed of romance and passion, poetry and love. 'Wool carries infection.' When the Great Emancipation is accomplished, and woman has entered into her kingdom, then this Professor of Budapest will probably share the fate of Pentheus."

Trained Nurse.—Apply to Mme. Gaches-Sarraute, care of Dr. Napias, Secretary Société de Médecine Publique et d'Hygiène Professionelle, Hôtel des Sociétés Savantes, Paris. We do not think they can be seen in London at present.

A QUERY.

To the Editors of THE LANCET.

SIRS,—I have a female patient, aged about forty-five years, who has been in India and while there had a miscarriage with severe hæmorrhage and afterwards jungle fever. Since then the left leg below the groin has been weak and at times painful, and has swelled up after using it for any length of time. Last March the patient was obliged to rest in bed in consequence, and had iodine liniment, electricity, and massage applied without much permanent benefit, for on trying to bear the weight of the body upon the limb it always gives way, causing pain and necessitating further rest. The present condition of the leg is cold mottled-looking, and slightly œdematous. The general health is almost always good. Crutches were used and an elastic stocking was worn. There seems to be defective circulation through the limb, and I suspect after the serious illness in India thrombosis of the femoral vein occurred. Can any of your readers inform me from experience whether the Tallerman-Sheffield hot-air apparatus would be likely to be beneficial in such a case? My patient is not well off, but would endeavour to meet this expense if likely to prove successful.

I am, Sirs, yours faithfully,

Rugeley, Dec. 1st, 1896. W. L. HUBBARD.

F. O.—The question of medical men charging dentists for professional advice, and *vice versâ*, is one which is difficult to answer. The usual course is for no charge to be made, but many medical men and dentists prefer to pay and under such conditions it is usual to charge half fees. Any person on the Dentists' Register is entitled to use the term surgeon-dentist, and all, whether qualified or otherwise, are entitled to be looked upon as professional brethren providing always they conduct their practice in a becoming manner.

ERRATA.—In the letter headed "A 2500 Volt Shock" in THE LANCET of Dec. 5th the word "played" in line 12 should be *passed*, and the word "which" in line 37 should be *what*.—In our review of vol. vi. of the "Twentieth Century Practice of Medicine" in THE LANCET of Dec. 5th, we stated that the price was 24*s.* per volume. The correct price is *one guinea* per volume bound in cloth, and *30s.* per volume half bound.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

During the week marked copies of the following newspapers have been received:—*Kendal Mercury, Burnley Express, Derby Daily Telegraph, Hampshire Telegraph, Blackburn Standard, West Ham Guardian, Western Daily Mercury, East Anglian Daily Times, Manchester Courier, Brighton Argus, Hull Mail, Times of India, Sheffield Telegraph, Scotsman, Pioneer Mail, Yorkshire Post, Glasgow Herald, Midland Telegraph, Architect, North British Daily Mail, Civil Service Gazette, South Wales Daily News, Lancashire Express, Daily Mail, Preston Morning News, Essex Newsman, Worcester Herald, Hereford Times, Liverpool Daily Post, Builder, Sussex Daily News, Bridgwater Independent, Kentish Mercury, Express and Star, Bristol Mercury, Birmingham Post, Derbyshire Times, Liverpool Courier, Bristol Times, Morpeth Herald, West Briton Advertiser, Newcastle Journal, Leeds Mercury, Brighton Gazette, Sportsman, Christian World, Hertfordshire Mercury, Local Government Chronicle, Weekly Free Press and Aberdeen Herald, Reading Mercury, City Press, Public Health, Sanitary Record, Guy's Hospital Gazette, Local Government Journal, Mining Journal, Surrey Advertiser, Scottish Highlander, Loughborough Monitor, Oswestry Advertiser, South Durham Mercury, Birmingham Daily Gazette, Carmarthen Weekly Reporter, Harrogate Advertiser, Dereham Standard, Hinckley Times, Launceston Weekly News, Le Courrier de la Presse (Paris), West Middlesex Herald, Bournemouth Visitors' Directory, Lowestoft Weekly Press, &c., &c.*

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Y.—Dr. I. B. Yeo, Lond.

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